Library & Information Spend Predictions for 2021

Results of Telephone Survey

Research Study undertaken by Ipsos MORI and PCG

Contents

1 Executive Summary

1.1 What was done

- A global telephone survey was carried out at 670 institutions across North America, South America, Europe, Asia Pacific and Middle East & Africa.
- Senior librarians and information officers with control over and knowledge of library and information services budgets for 2021 were contacted in order to understand current industry trends and predict future purchasing behaviour.
- Institutions included academic institutions, hospitals/trusts, medical schools, government functions and corporations. Academic institutions were categorised by their size and high-level information needs.
- Mixed mode, online and telephone surveys were carried out by independent research agencies Ipsos MORI and PCG who have specialist knowledge of conducting international research studies.
- Quotas for this study were set to reflect the global contribution to library and information spend by region and type of institute. Small scale imbalances in the final profile achieved were adjusted by weighting at the analysis stage.
- It should be noted that some participants could only give broad indications as to what they expected to occur in regard to next year's budget.

2 Summary of Results

Budget trends in 2021 by type of Institution

Budget	Academic Institutes			Corp.	Gov't	Hosp/ Medical	Total
	Top	Middle	Lower				
Overall	2.0	-0.8	0.1	1.2	-1.0	1.1	0.7
Materials	1.9	-0.6	1.3	0.7	-1.1	0.7	0.6
- Serials	0.6	-0.4	0.9	-1.8	-2.2	0.2	-0.2
*- Database & Info Tools**	2.2	1.7	2.0	3.5	3.1		2.4
- Medical Info Tools	3.7	0.5	2.0			3.1	2.8
- Books	2.9	-1.5	1.0	-0.9	-1.0	0.6	0.4
n	*71*	*88*	*91*	*84*	*46*	*290*	*670*

**Including Abstracting and Indexing services*

NB: Arrows green or red indicate change greater than 0.5%

2020 was an exceptional year with the global coronavirus pandemic impacting almost all areas of the world. In spite of severe budget constraints experienced by many institutions, information spend is proving to be resilient according to librarians and information managers taking part in this research.

When reviewing the results of this survey, please note that all forecasts for future budget changes are based on predictions from librarians and information officers.

- Overall Spend (which includes operational expenditure, salary costs as well as materials) are set to **increase by 0.7% in 2021** (in 2020 a 2.4% increase was forecast).
  - All regions, with the exception of Asia Pacific, forecast some form of budget rise, however, the scale of these varied.
  - Limited increases to overall library budgets are predicted in North America (0.9%), and Europe (0.7%), with a contraction in budgets in Asia Pacific (-0.3).
  - Projected increases were higher in the Middle East & Africa (5.1%) and South America (4.0%). However, it is important to note that data for the Middle East & Africa and South America are based on relatively small base sizes, and therefore should be treated with caution throughout the report when interpreting the results.
  - At an institution level across all regions, the most significant increases were noted across Top-Tier Academic institutes (2.0%), Corporate institutes (1.2%) and Medical institutes (1.1%). Other sectors were largely flat, with the exception of Government institutes where budgets were projected to contract (-1.0%).
  - Considering qualitative predictions, 27% of institutes expect their budget to increase in 2021 (down from 33% in 2020), 47% to remain static, while 19% expect these to decrease (up from 14% in 2020).*
- Materials and Information Spend (all information content provision) are predicted to **increase by 0.6% in 2021** (1.0% increase was predicted in 2020).
  - Modest increases or static budgets are forecast in the three largest regions: Europe (1.1%), North America (0.1%) and Asia Pacific (-0.1%).

* The sum of responses does not add to 100% as there were 7% of participants who said that that they didn't know or were unable to say whether budgets would be changing. This also applies to other qualitative budget forecasts for different areas in the report where the sum of responses may not add to 100%.

- Whilst more significant increases are projected in South America (4.7%) and the Middle East & Africa (4.6%).
- Across segments, Academic institutions overall are forecasting a 0.9% budget increase (1.9% amongst Top-Tier institutions). Similar growth is expected in Corporations (0.7%) and Medical institutes (0.7%). Government budgets are the exception to this trend and are expected to decline (-1.1%).
- Qualitatively, 30% of institutes predict that their materials budget will rise in 2021, 47% believe it will remain static, whilst 19% anticipate a decrease. This compared to 34%, 45% and 16% respectively in 2020.
- The current 2020 breakdown of the materials budget is as follows: 37% journals and serials, 35% databases and tools, 22% books (including e-books) and 6% other information sources. These figures were broadly comparable across the different regions and institutions and have changed little since the previous year although it was observed that medical institutes allocated a greater proportion of their budget to journals and serials (42%), whilst institutes in North America were more likely to spend their budgets on databases and tools (41%).
- Overall, Academic institutions that teach Medicine, Nursing and Allied Health subjects spent 29% of their current materials budget on these subject areas.
- For 2021, such institutions expect to increase spending on these subject areas by 1.6%.

- Serials budgets are forecast to **decrease by 0.2%** (a 0.6% increase was predicted in 2020)
  - North America and Europe predict 0.1% and 0.0% increases respectively for serials.
  - Asia Pacific serials budgets were projected to decrease by 0.9% (+0.1% in 2020).
  - 22% of institutions expect an increase in serials budgets in 2021 (33% in 2020). 52% (48% in 2020) believe it will remain static whilst 17% (15% in 2020) predict a decrease in this area.

- 'Open Access' fees are being paid from the materials budget by 31% of institutes (a 9% percentage point rise from last year). This is more prevalent in Europe and North America (42% and 37% respectively), compared to Asia Pacific (19%).

- Database and Information tools (including A&I services) are provided by 89% of institutes, similar to 2020 (85%). Budgets here are expected to rise by 2.4%. 1 in 3 (34%) predict an increase in budgets in 2021, whilst 51% anticipated no change to budgets. Most institutes (70%) take two or more services.

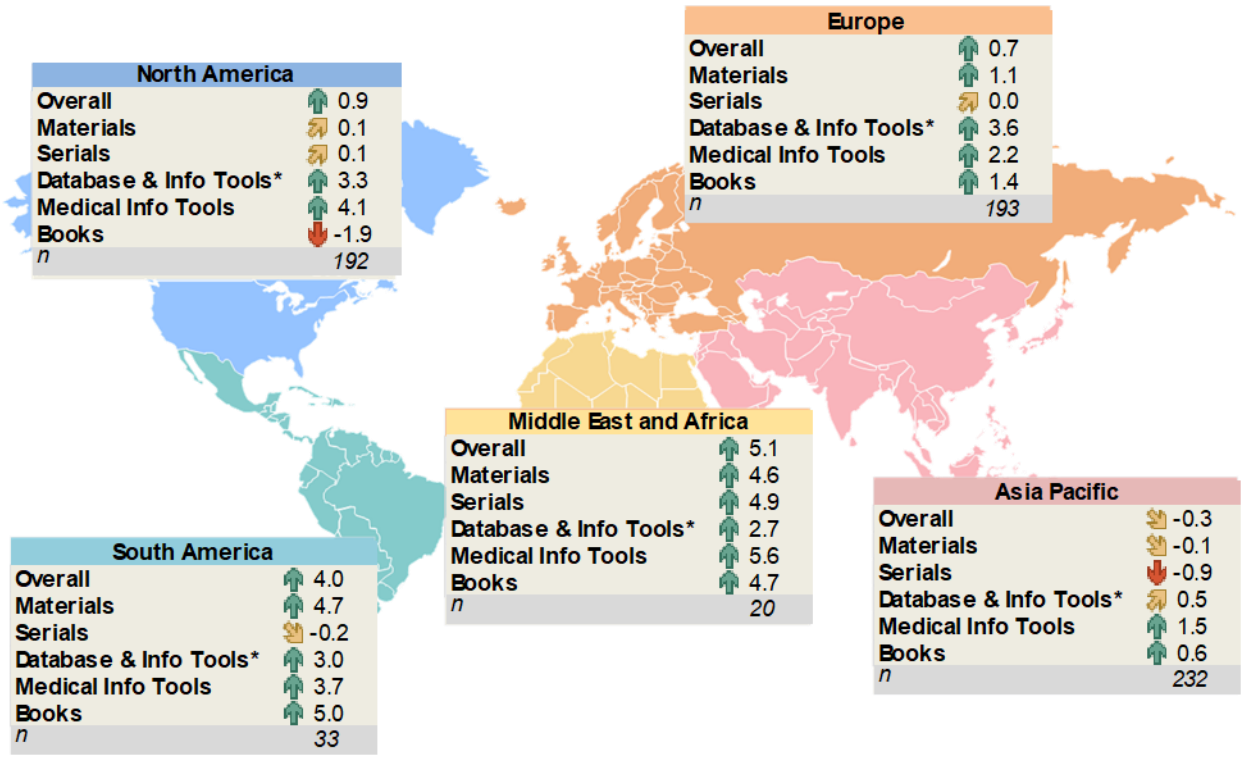
- Research Data Management – 45% (46% in 2020) of institutes provide Institutional Repositories, rising to 69% (67% in 2020) amongst Academic institutes. RDM, CRIS and Research Performance Analytics tools were less likely to be provided (by 26%, 25% and 28% of institutes respectively), although year-on-year increases were reported for all of these.

- Medical Information Tools – Clinical Reference systems were the most widely used of the tools, with 4 in 5 of Hospitals using these.
  - Diagnostic or Advanced Clinical Decision Support tools and Patient Engagement tools were less prevalent, with 1 in 3 using such tools.
  - 2021 budgets were expected to increase by an average of 2.8% in this area (down from 4.1% in 2020), but it was noted that budgets were higher in North America with a 4.1% increase projected in 2021.

- Book expenditure is forecast to **increase by 0.4%** (an increase of 1.5% was predicted in 2020).
  - Europe and Asia Pacific expect increases of 1.4% and 0.6% respectively, with higher estimates predicted in South America (5.0%), the Middle East & Africa (4.7%) and Emerging markets (3%).

- North America shows a decline of -1.9% and continues the downward trend noted since 2018. Declines are more marked amongst Mid and Lower-Tier Academic institutions (-4.4% and -2.8% respectively), Government and Corporate institutions.
- Book budgets are set to rise by 3.0% amongst the Emerging countries subset, with Medical institutes (4.4%) being the sector with the highest predicted growth in such countries.
- Top-Tier institutions bucked the general trend amongst Academics and were the group predicting the highest increase to Book budgets in 2021 across all sectors (2.9%).
- The majority (57%) of institutes believe their budgets will remain static, similar to observations in 2020. 22% predict that budget expenditure for 2021 will increase while 16% predict a decrease.
- On average, 22.6% of existing (2020) book budgets are spent on e-books, a slight decline on the 2019 estimate (24.7%). E-book expenditure is predicted to increase by 3.8% across all institutions; this increased to 5.8% amongst Academic institutions.

Budget trends in 2021 by Region*



Including Abstracting and Indexing services

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

3 Overall Library & Info spend broken down

3.1 Academic Institutes Library Expenditure

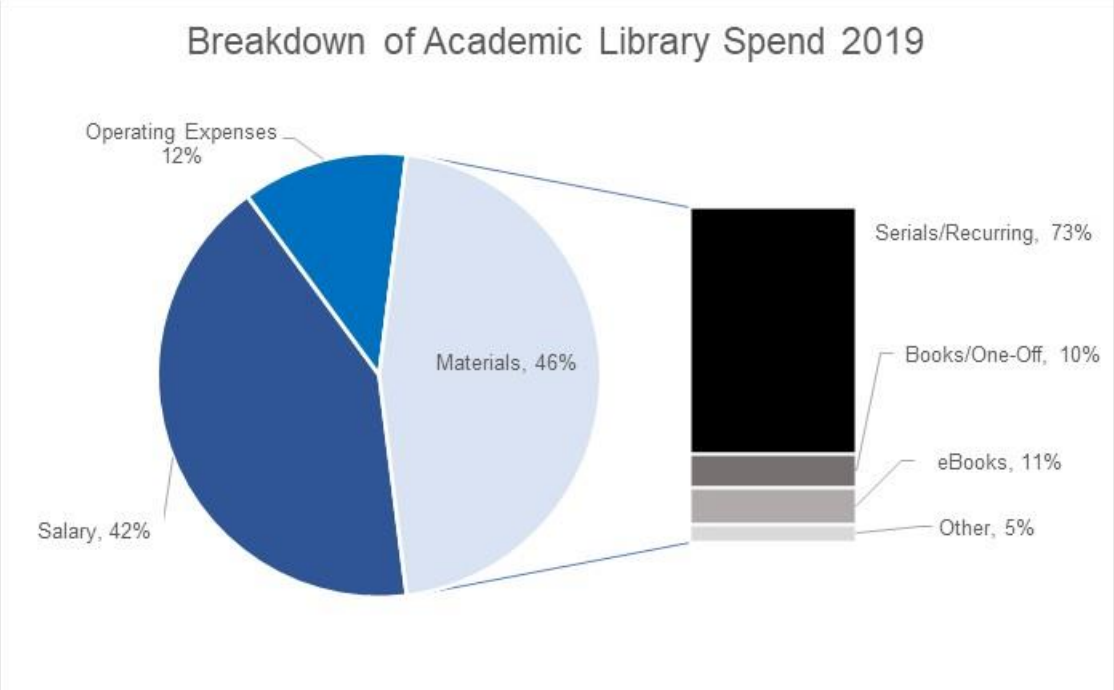
The overall library budget includes the ongoing costs of maintaining a library, salary, materials and operating expenditure.

A review of the Association of Research Libraries (ARL) statistics provides an idea of how library budgets break down in the Academic institutes for North America.

The ARL statistics include details of collections, expenditures, staffing, and service activities for its member libraries and the majority of the libraries are large North American academic institutes.

The latest data is from 2019[1]. 116 university libraries reported a combined expenditure of $3.6 billion. This expenditure broke down into: Materials (46%), Salaries (42%) and other operating expenditures (12%) - see chart below.

Spend on information content, tools and solutions is normally (but not always) part of the Materials budget. The Materials budget further broke down into ongoing resource expenditure (73%) and one-time resource expenditure (10%), with the rest being allocated to collection support. It is worth noting that the ARL no longer classifies expenditure in terms of serials or books, they changed their approach in 2012. However, when looking at their definitions and the amount of expenditure this classification represents when compared to previous periods, it is clear most of the expenditure associated with ongoing resources will be traditional journal subscriptions.



4 Methodology

A total of 670 interviews were conducted between September 2020 and January 2021. A mixed mode methodology was employed, with 34 online interviews and 636 telephone interviews completed.

Individuals with responsibility for the administration of budgets for libraries or information services were recruited from 6 main categories of institution:

1. Academic* Low-Tier: 500 to 9,999 full time students.
2. Academic* Mid-Tier: 10,000 to 24,999 full time students.
3. Academic* Top-Tier: 25,000+ full time students.
4. Medical: Both public and private hospitals and medical trusts, including those providing primary care and/or secondary care. The size of the hospital was determined by bed capacity; less than 100, 100-249 beds and 250+ beds.
5. Government: Government departments, public sector bodies/agencies.
6. Corporate: Commercial companies having 200+ employees, with a R&D function (e.g. Pharma, Engineering, Oil/Gas, Technology).

* Academic Institutions include universities and other higher academic institutions, including medical schools attached to the university. Classification of Tier was based on the number of full-time students, provided by participants.

Interviews were conducted in 38 countries, across 6 regions – North America, Europe, Asia Pacific, South America and Middle East & Africa.

The full list of countries included was as follows: Canada, USA, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Russia, Spain, Sweden, Switzerland, UK, Australia, China, India, Japan, South Korea, Malaysia, New Zealand, Taiwan, Argentina, Brazil, Chile, Colombia, Mexico, Venezuela, Israel, South Africa, Turkey.

A standardised 20-minute questionnaire was used in all markets and translated into 15 different languages.

Quotas were adopted on type of institution and region, and a full breakdown of the final sample has been included on following page. The reported data has been weighted back to the original quota targets to adjust for small scale imbalances in the final distribution of interviews.

Within the following report, we have included a combined measure of all Academic institutions, combining the responses from Top, Middle and Low-Tier institutions.

Where appropriate, we have also included a subset of markets called ‘Emerging countries’. This includes the following markets: India, China, Czech Republic, Hungary, Poland, Romania, Russia, Argentina, Brazil, Chile, Colombia, Mexico, Turkey, South Africa and Venezuela.

The overall margin of error is approximately ±3.8%, based on the total sample size of 670 (e.g. if 50% of the overall sample claim to use a particular information tool, the actual proportion is likely to lie between 46.2% to 53.8%).

4.1 Sample collected

The final sample breakdown was as follows:

Region	Country	Academic Tier 1	Academic Tier 2	Academic Tier 3	Hospitals	Govt.	Corporate	Total	%
North America	USA	24	26	23	78	10	18	179	27%
	Canada	2	2	1	6	1	1	13	2%
	Total	**26**	**28**	**24**	**84**	**11**	**19**	**192**	**29%**
Europe	Austria	2	1	0	3	0	1	7	1%
	Belgium	1	1	0	3	0	1	6	1%
	Czech Republic	1	1	1	3	0	1	7	1%
	Denmark	1	0	0	1	0	0	2	0%
	Finland	0	0	0	2	0	0	2	0%
	France	3	3	4	20	2	2	34	5%
	Germany	6	6	7	12	3	4	38	6%
	Hungary	0	0	0	1	0	0	1	0%
	Ireland	0	0	0	2	0	1	3	0%
	Italy	2	3	1	7	1	3	17	3%
	Netherlands	1	1	0	0	0	1	3	0%
	Poland	2	1	2	3	0	1	9	1%
	Portugal	0	0	0	3	0	0	3	0%
	Romania	0	1	0	0	0	0	1	0%
	Russia	2	2	2	7	1	2	16	2%
	Spain	1	1	3	7	1	1	14	2%
	Sweden	1	0	0	3	0	0	4	1%
	Switzerland	1	2	0	4	0	3	10	1%
	United Kingdom	3	3	0	7	1	2	16	2%
	Total	**27**	**26**	**20**	**88**	**9**	**23**	**193**	**29%**
Asia Pacific	Australia	1	2	0	5	2	1	11	2%
	China	11	11	11	20	6	12	71	11%
	Hong Kong	0	0	1	0	0	0	1	0%
	India	4	3	6	16	5	2	36	5%
	Japan	9	6	1	38	5	9	68	10%
	Malaysia	0	0	0	4	0	0	4	1%
	New Zealand	4	4	2	7	4	7	28	4%
	South Korea	0	0	0	1	0	0	1	0%
	Taiwan	2	2	0	5	1	2	12	2%
	Total	**31**	**28**	**21**	**96**	**23**	**33**	**232**	**35%**
South America	Argentina	1	0	1	2	0	1	5	1%
	Brazil	2	3	2	7	1	2	17	3%
	Chile	0	0	0	1	0	0	1	0%
	Colombia	0	0	0	1	0	0	1	0%
	Mexico	1	1	1	3	0	2	8	1%
	Venezuela	0	0	0	0	0	1	1	0%
	Total	**4**	**4**	**4**	**14**	**1**	**6**	**33**	**5%**
Middle East and Africa	Israel	1	0	0	2	1	1	5	1%
	Saudi Arabia	0	0	0	0	0	0	0	0%
	South Africa	1	1	1	4	0	1	8	1%
	Turkey	1	1	1	2	1	1	7	1%
	Total	**3**	**2**	**2**	**8**	**2**	**3**	**20**	**3%**
Total	***N***	***91***	***88***	***71***	***290***	***46***	***84***	***670***	***100%***
	%	***14%***	***13%***	***11%***	***43%***	***7%***	***13%***	***100%***	

5 Overall Spend

5.1 Overall Spending Predications for 2021

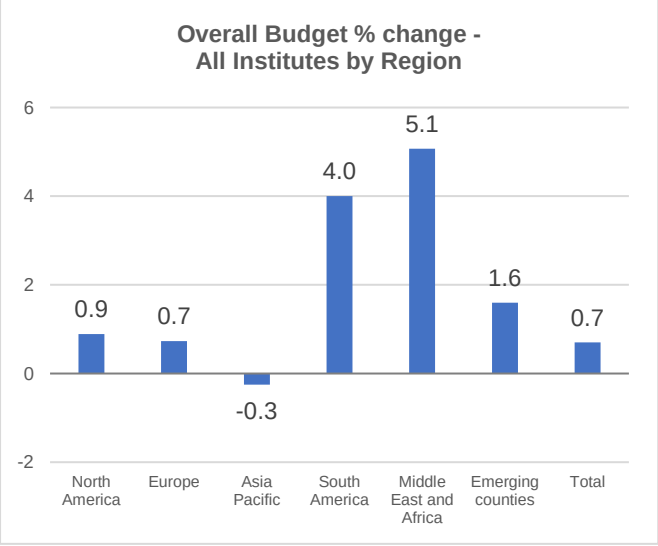
All librarians and information officers were asked if they expect their overall spend for 2021 to increase, remain the same or decrease when compared to their 2020 budget. This refers to the overall budget spent and includes salaries, operating or maintenance costs and materials costs (e.g. books, book series, journals and information tools).

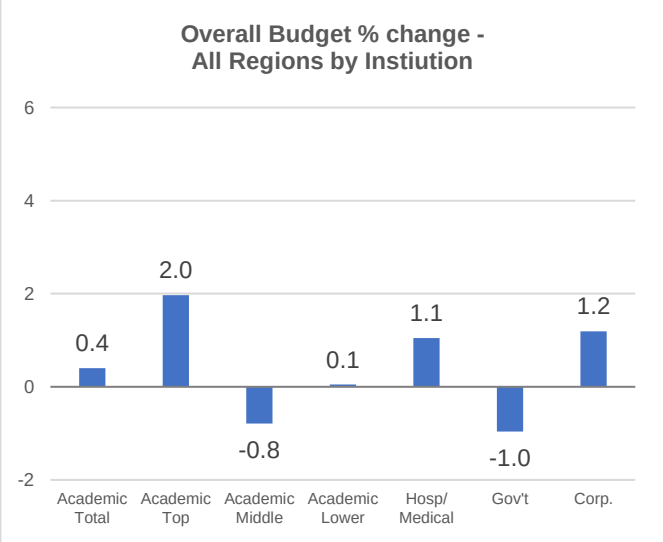
Overall spend is predicted to increase by 0.7% in 2021. This represents a fall from levels reported in 2020 (+2.4%) and is driven partly by falling budgets in Asia Pacific (-0.3% in 2021 vs +3.6% in 2020) and institutions within Emerging countries (1.7% in 2021 vs. 7.2% in 2020).

All regions, apart from Asia Pacific, are predicting some form of increase in 2021; there is variance by geography. More modest increases are predicted in North America (0.9%) and Europe (0.7%), whilst greater budget increases are estimated in the Middle East & Africa (5.1%) and South America (4.0%)*.

- Academic institutions, at a total level, are expecting an increase of 0.4% and much of this stems from budget increases in Top-Tier Academic institutions (2.0%), despite flat or declining budgets amongst other academic institutions.
- Overall budgets are also expected to increase within Corporate institutions (2.9%) and Medical institutions (1.1%).

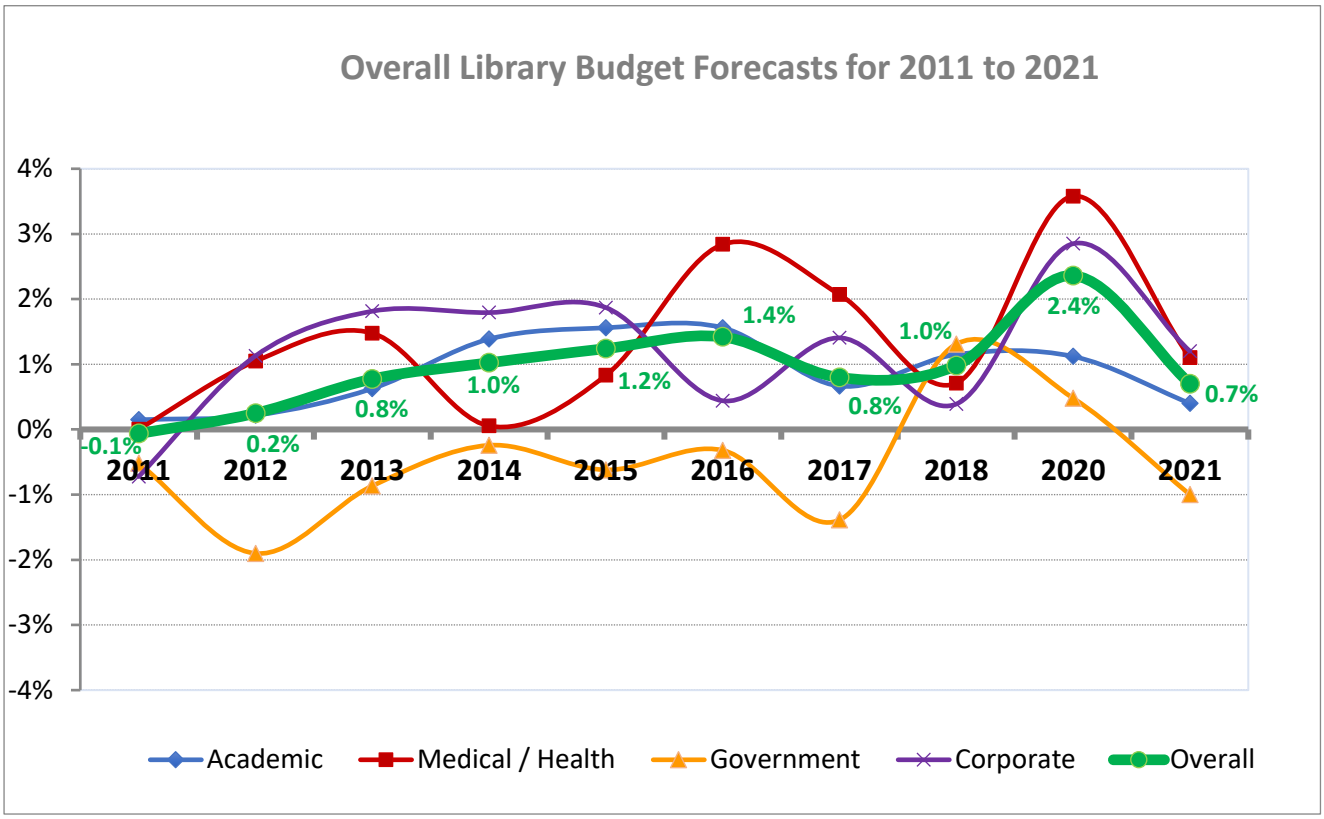
Qualitative forecasts indicate that 47% of all institutional budgets will remain static (compared to 48% in 2020). One in four (27%) of institutes predict budget growth in 2021, which is a decrease from 34% in 2020. 19% of institutes are expecting a decrease in overall budget size (vs 14% in 2020). These figures are broadly comparable across the three main regions. It was also noted that the high levels of growth seen in Emerging markets in 2020 is not present in 2021.





Base: 670 participants

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.


Overall Library Budget Forecasts for 2011 to 2021
4%
3%
2%
1%
0%
-1%
-2%
-3%
-4%
2011
2012
2013
2014
2015
2016
2017
2018
2020
2021
-0.1%
0.2%
0.8%
1.0%
1.2%
1.4%
0.8%
1.0%
2.4%
0.7%
Academic
Medical / Health
Government
Corporate
Overall

Budget change for 2021 - Overall Spend						
		*Base**	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	24	33%	17%	50%	0.8
	Academic Middle	28	18%	36%	43%	-1.6
	Academic Lower	26	23%	31%	42%	-1.9
	All Academic	78	25%	28%	45%	-0.8
	Medical/Health	84	40%	32%	20%	3.3
	Government	11	9%	55%	36%	-4.3
	Corporate	19	37%	32%	16%	2.3
	Overall	192	32%	32%	30%	0.9
Europe	Academic Top	20	25%	45%	20%	1.9
	Academic Middle	26	31%	54%	12%	1.5
	Academic Lower	27	22%	52%	22%	1.2
	All Academic	73	26%	50%	18%	1.6
	Medical/Health	88	19%	64%	11%	0.6
	Government	9	11%	67%	11%	0.6
	Corporate	23	17%	65%	13%	-1.0
	Overall	193	21%	59%	14%	0.7
Asia Pacific	Academic Top	21	29%	57%	10%	1.6
	Academic Middle	28	11%	54%	25%	-2.8
	Academic Lower	31	26%	52%	23%	-1.1
	All Academic	80	22%	54%	19%	-0.8
	Medical/Health	96	27%	48%	18%	-0.4
	Government	23	17%	65%	13%	0.9
	Corporate	33	30%	52%	12%	1.2
	Overall	232	25%	52%	17%	-0.3
South America	Academic Top	4	25%	50%	0%	10.0
	Academic Middle	4	25%	75%	0%	2.7
	Academic Lower	4	50%	50%	0%	11.3
	All Academic	12	33%	58%	0%	8.3
	Medical/Health	14	21%	57%	21%	-2.3
	Government	1	0%	0%	0%	0.0
	Corporate	6	67%	17%	0%	17.0
	Overall	33	30%	48%	9%	4.0
Middle East and Africa	Academic Top	2	50%	50%	0%	7.5
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	3	0%	67%	0%	0.0
	All Academic	7	50%	39%	0%	4.2
	Medical/Health	8	75%	13%	13%	9.5
	Government	2	0%	50%	50%	-2.5
	Corporate	3	0%	33%	33%	-2.5
	Overall	20	51%	28%	13%	5.1
Emerging Countries	Academic Top	28	25%	58%	11%	3.3
	Academic Middle	25	26%	58%	8%	0.1
	Academic Lower	26	16%	54%	23%	-0.3
	All Academic	79	23%	57%	13%	1.4
	Medical/Health	70	37%	40%	18%	1.6
	Government	14	29%	45%	6%	4.7
	Corporate	26	36%	45%	17%	1.2
	Overall	189	30%	49%	15%	1.7
Overall	Academic Top	71	29%	41%	23%	2.0
	Academic Middle	88	22%	48%	24%	-0.8
	Academic Lower	91	24%	46%	26%	0.1
	All Academic	250	25%	45%	25%	0.4
	Medical/Health	290	30%	47%	17%	1.1
	Government	46	12%	58%	20%	-1.0
	Corporate	84	29%	47%	14%	1.2
	Overall	670	27%	47%	19%	0.7

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

6 Materials and Information Spend

6.1 Breakdown of Materials and Information Spend

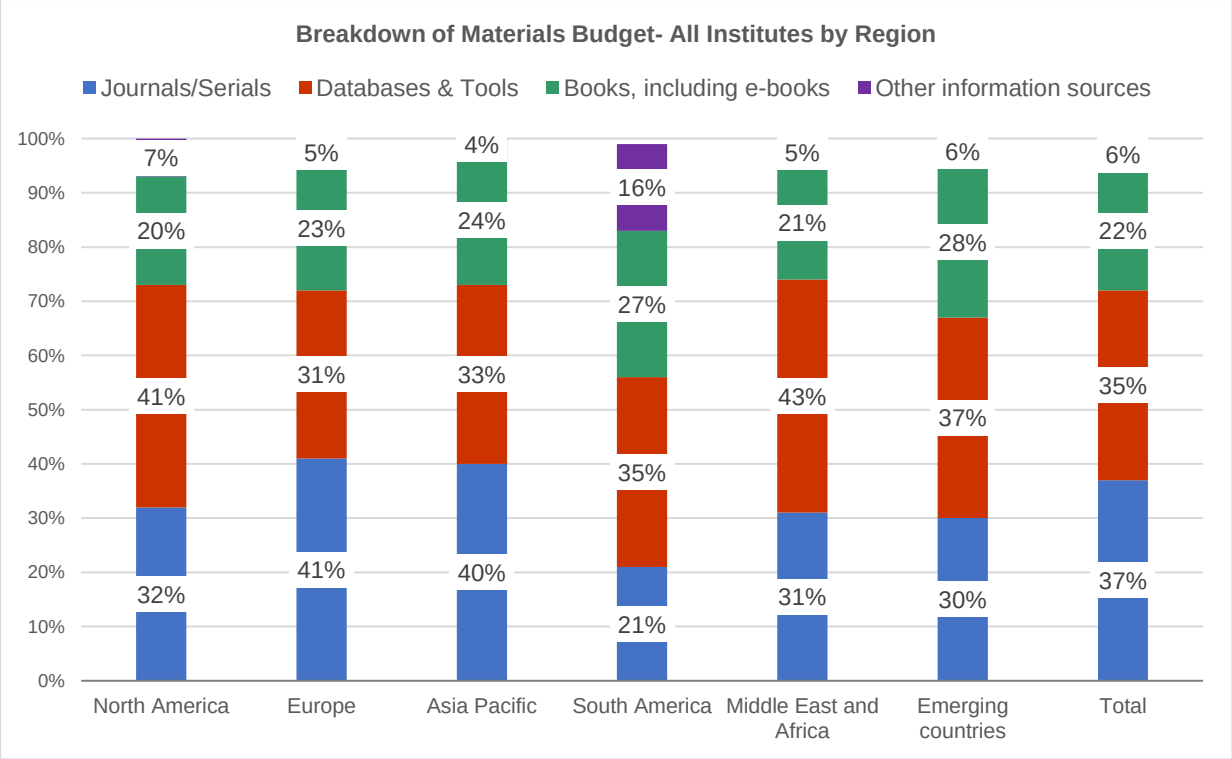
All librarians and information officers were asked about their current Materials and Information Spend, and expectations for 2021. This budget category includes the acquisition of information resources such as:

- Journals/Serials (i.e. repeating publications on a subject or area; typically monthly or quarterly and subscription based; category includes journal databases or platforms.
- Databases and Information Tools: enabling users to find and access information.
    - For research organisations this included A&I databases (i.e. bibliographic, abstracting or indexing databases used to search for scholarly content across academic books, conference, journals). Tools could include specialist search databases covering chemistry, engineering, drug interactions, as well as online all-in-one library searching tools.
    - For medical institutions this included medical tools that provide access to content for physicians and patients to improve patient care and Diagnostic or Advanced Clinical Decision Support tools, and Patient Engagement tools.
- Books, including e-books (normally written for scholars/researchers/professionals to share research findings or provide foundational knowledge in particular fields. Books can sometimes be part of a series).
- Other information sources (i.e. any other information resources that are purchased and managed by the institution or organisation).

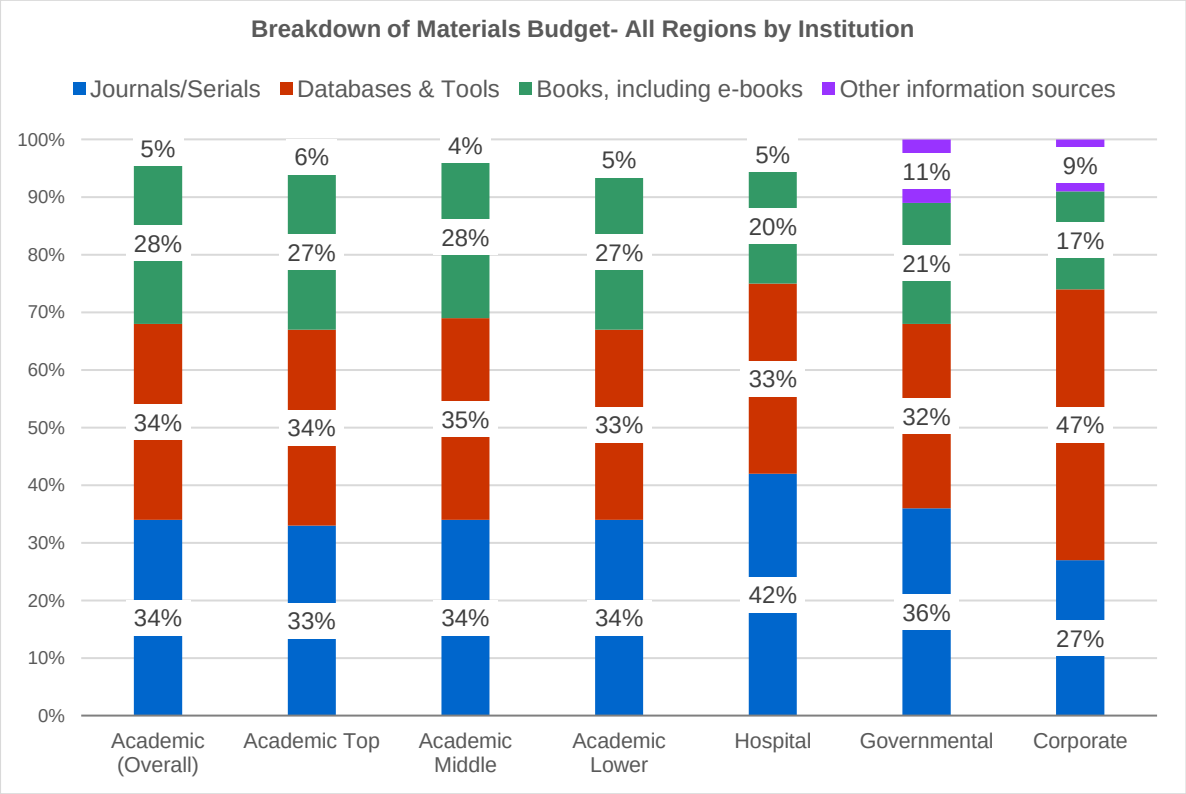
Full definitions for each of these elements can be found within the Appendix.

Participants were asked to provide a breakdown of their current Materials budget, and the results were broadly consistent between the different regions and types of institutions. At a total level, it is estimated that 37% is spent on Journals and Serials, 35% on Databases and Tools, 22% on Books (including e-books) and 5% on Other information sources such as multi-media, industry reports, etc.

- Institutions in Europe spent 41% of their materials budget on Journals and Serials, the highest of any region. The largest share of spending on Databases and Tools was in North America (41%), and South America invested the highest share of their budget in books and e-books (27%).
- Both Hospitals and Medical Trusts (42%), and Government institutions (36%) spend the highest proportion of their budgets on Journals and Serials. Corporate institutions spent 47% of their Materials budget on Databases and Tools.
- Hospitals, Government and Corporate spend the least proportion of their budget on books
- Corporate and Government spend more of their budget on “Other information sources” compared to other institutions. The base size for this category was small and responses were diverse, however, example responses included specialist sources or publications, as well as multi-media (mentioned by 4 participants).
- In South America, 16% of spend on ‘Other information sources’ stemmed from 16 participants, and responses included specialist publications or sources and media. However, in most cases this was expenditure on miscellaneous items.



Base: North America 192; Europe 193; Asia Pacific 232; South America 33; ME&A 20; Emerging Countries 189, Total 670



Base: Academic Overall 250; Academic Top 71; Academic Middle 88; Academic Lower 91; Hospital 290; Government. 46; Corporate 84, Total 670

Breakdown of Materials/Information Spend - All Regions						
	Base	**Journals/Serials**	**Databases & Tools**	**Books, including e-books**	**Other information sources**	**Total**
North America	*192*	32%	41%	20%	7%	100%
Europe	*193*	41%	31%	23%	5%	100%
Asia Pacific	*232*	40%	33%	24%	4%	100%
South America	*33*	21%	35%	27%	16%	100%
Middle East & Africa	*20*	31%	43%	21%	5%	100%
Emerging countries	*189*	30%	37%	28%	6%	100%
Total	*670*	*37%*	*35%*	*22%*	*6%*	*100%*

Breakdown of Materials /Information Spend - All Institutions						
	Base	**Journals/Serials**	**Databases & Tools**	**Books, including e-books**	**Other information sources**	**Total**
Academic (Overall)	*250*	34%	34%	28%	5%	100%
Academic Top	*71*	33%	34%	27%	6%	100%
Academic Middle	*88*	34%	35%	28%	4%	100%
Academic Lower	*91*	34%	33%	27%	5%	100%
Hospital	*290*	42%	33%	20%	5%	100%
Governmental	*46*	36%	32%	21%	11%	100%
Corporate	*84*	27%	47%	17%	9%	100%
Total	*670*	*37%*	*35%*	*22%*	*6%*	*100%*

Breakdown of Materials/Information Spend- All Regions by Institution							
Region	**Organisation**	**Base***	**Journals/ Serials**	**Databases & Tools**	**Books, including e-books**	**Other information sources**	**Total**
North America	Academic Top	24	30%	36%	28%	6%	100%
	Academic Middle	28	32%	41%	23%	3%	100%
	Academic Lower	26	30%	44%	22%	4%	100%
	All Academic	*78*	*31%*	*40%*	*24%*	*5%*	*100%*
	Medical/Health	84	38%	38%	16%	9%	100%
	Government	11	22%	47%	24%	7%	100%
	Corporate	19	20%	51%	21%	8%	100%
	Overall	***192***	**32%**	**41%**	**20%**	**7%**	**100%**
Europe	Academic Top	20	42%	25%	27%	6%	100%
	Academic Middle	26	40%	28%	28%	4%	100%
	Academic Lower	27	35%	36%	26%	3%	100%
	All Academic	*73*	*39%*	*29%*	*27%*	*5%*	*100%*
	Medical/Health	88	46%	29%	22%	4%	100%
	Government	9	42%	35%	15%	8%	100%
	Corporate	23	29%	43%	18%	11%	100%
	Overall	***193***	**41%**	**31%**	**23%**	**5%**	**100%**
Asia Pacific	Academic Top	21	30%	38%	27%	5%	100%
	Academic Middle	28	34%	34%	30%	2%	100%
	Academic Lower	31	38%	27%	27%	8%	100%
	All Academic	*80*	*34%*	*33%*	*28%*	*5%*	*100%*
	Medical/Health	96	46%	29%	23%	1%	100%
	Government	23	50%	24%	22%	4%	100%
	Corporate	33	31%	49%	14%	6%	100%
	Overall	***232***	**40%**	**33%**	**24%**	**4%**	**100%**
South America	Academic Top	4	21%	40%	35%	4%	100%
	Academic Middle	4	23%	14%	56%	8%	100%
	Academic Lower	4	19%	11%	68%	3%	100%
	All Academic	*12*	*21%*	*22%*	*53%*	*5%*	*100%*
	Medical/Health	14	23%	54%	14%	9%	100%
	Government	1	0%	0%	0%	100%	100%
	Corporate	6	27%	35%	17%	22%	100%
	Overall	***33***	**21%**	**35%**	**27%**	**16%**	**100%**
Middle East and Africa	Academic Top	2	43%	45%	8%	5%	100%
	Academic Middle	2	8%	78%	13%	3%	100%
	Academic Lower	3	48%	22%	29%	2%	100%
	All Academic	*7*	*33%*	*48%*	*16%*	*3%*	*100%*
	Medical/Health	8	30%	44%	21%	6%	100%
	Government	2	18%	8%	65%	10%	100%
	Corporate	3	35%	40%	17%	8%	100%
	Overall	***20***	**31%**	**43%**	**21%**	**5%**	**100%**
Emerging Countries	Academic Top	28	27%	39%	28%	6%	100%
	Academic Middle	25	15%	44%	39%	2%	100%
	Academic Lower	26	28%	31%	40%	1%	100%
	All Academic	*79*	*24%*	*38%*	*35%*	*3%*	*100%*
	Medical/Health	70	36%	34%	26%	4%	100%
	Government	14	35%	24%	18%	23%	100%
	Corporate	26	30%	47%	14%	9%	100%
	Overall	***189***	**30%**	**37%**	**28%**	**6%**	**100%**
Overall	Academic Top	71	33%	34%	27%	6%	100%
	Academic Middle	88	34%	35%	28%	4%	100%
	Academic Lower	91	34%	33%	27%	5%	100%
	All Academic	*250*	*34%*	*34%*	*28%*	*5%*	*100%*
	Medical/Health	290	42%	33%	20%	5%	100%
	Government	46	36%	32%	21%	11%	100%
	Corporate	84	27%	47%	17%	9%	100%
	Overall	***670***	**37%**	**35%**	**22%**	**6%**	**100%**

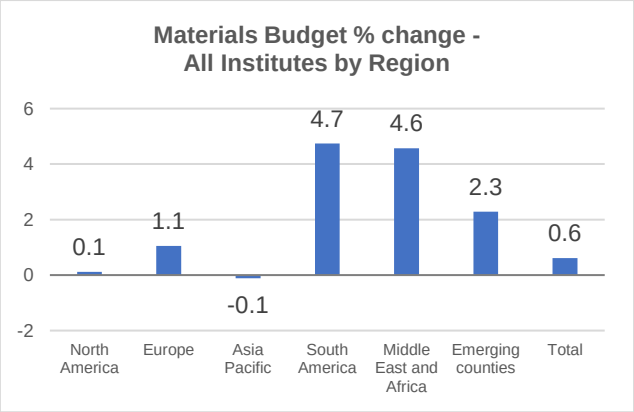
* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

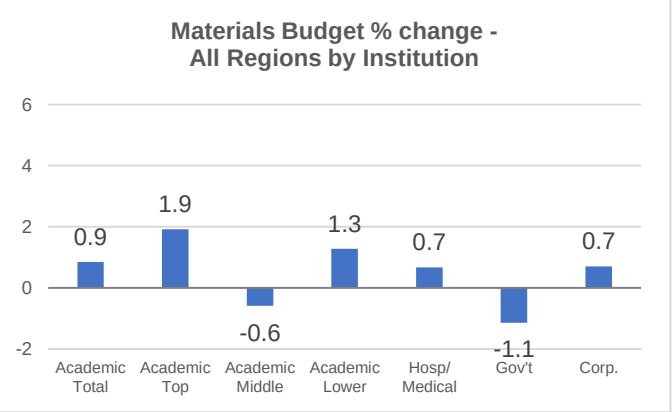
6.2 Materials and Information Spend Predications for 2021

Overall materials spend is set to increase slightly in 2021 by 0.6%, which is closely aligned with the previous 2020 forecast (1.0%).

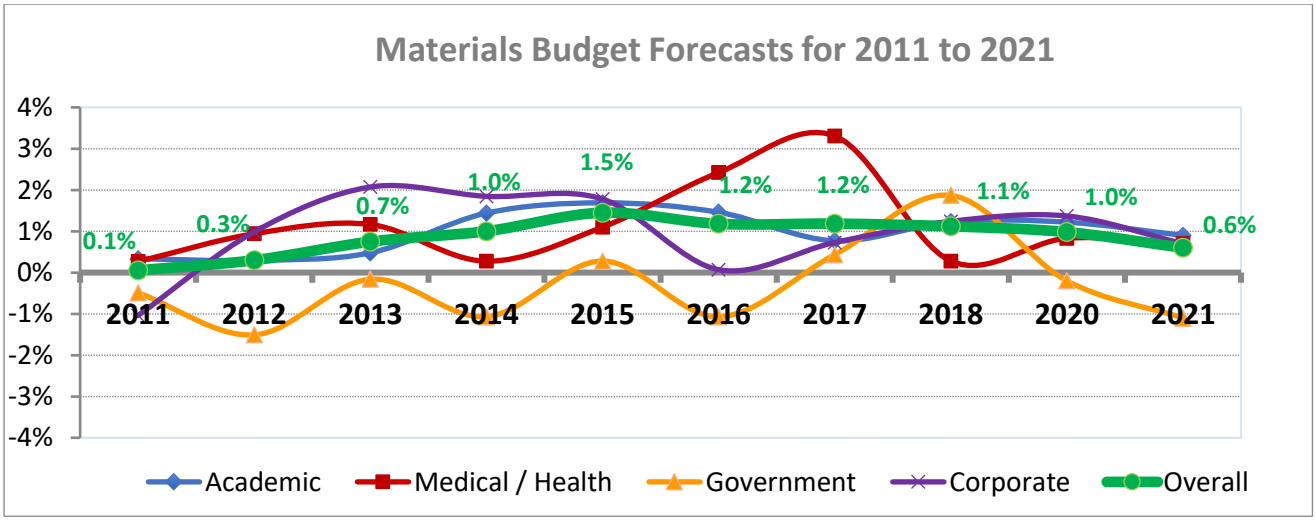
- In North America and Asia Pacific, Materials budgets are predicted to remain static in 2021, whilst all other regions have estimated growth in this area. Small increases are forecast in Europe (1.1%), whilst larger rises are estimated in South America (4.7%) and the Middle East & Africa (4.6%)*.
- Predictions between the different types of institution are broadly aligned, with an increase of 0.9% anticipated across all Academic institutions, and a 0.7% increase amongst Corporate and Medical institutions. Government institutions are set to decline (-1.1%), along with Mid-Tier academic institutions (-0.6%).

Qualitative forecasts suggest that 47% of Material budgets will remain static (compared to 45% in 2020), with 30% of institutes predicting growth in this category for 2021 (a decrease from 34% in 2020). 17% of institutes are expecting a decrease in the overall materials budget size, which is comparable to the budget forecast for 2020. Circa 1 in 3 institutions (36%) in Emerging countries are predicting some form of rise to their Materials budget in 2021, compared to 50% in 2020.





Base: 670 participants



* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

Materials and Information Spend change for 2021						
		Base *	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	24	50%	25%	25%	2.3
	Academic Middle	28	36%	32%	32%	-0.1
	Academic Lower	26	38%	23%	38%	-0.8
	All Academic	*78*	*41%*	*27%*	*32%*	*0.5*
	Medical/Health	84	31%	43%	23%	0.7
	Government	11	9%	45%	45%	-4.2
	Corporate	19	37%	21%	32%	-0.1
	Overall	192	34%	34%	29%	0.1
Europe	Academic Top	20	45%	30%	10%	2.1
	Academic Middle	26	38%	50%	12%	2.0
	Academic Lower	27	33%	37%	26%	2.2
	All Academic	*73*	*39%*	*39%*	*16%*	*2.1*
	Medical/Health	88	24%	58%	13%	0.9
	Government	9	0%	89%	11%	-1.7
	Corporate	23	13%	70%	13%	0.2
	Overall	193	26%	55%	14%	1.1
Asia Pacific	Academic Top	21	33%	43%	19%	0.0
	Academic Middle	28	18%	39%	39%	-3.7
	Academic Lower	31	35%	48%	16%	0.7
	All Academic	*80*	*29%*	*44%*	*25%*	*-1.0*
	Medical/Health	96	26%	57%	15%	0.2
	Government	23	26%	57%	9%	1.9
	Corporate	33	21%	55%	18%	0.2
	Overall	232	26%	52%	18%	-0.1
South America	Academic Top	4	50%	50%	0%	10.0
	Academic Middle	4	25%	50%	25%	1.7
	Academic Lower	4	50%	50%	0%	11.3
	All Academic	*12*	*42%*	*50%*	*8%*	*8.0*
	Medical/Health	14	21%	64%	14%	-0.2
	Government	1	0%	0%	0%	0.0
	Corporate	6	67%	33%	0%	12.8
	Overall	33	33%	50%	9%	4.7
Middle East and Africa	Academic Top	2	50%	50%	0%	5.0
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	3	33%	67%	0%	1.3
	All Academic	*7*	*61%*	*39%*	*0%*	*3.1*
	Medical/Health	8	75%	13%	13%	6.8
	Government	2	50%	0%	50%	1.0
	Corporate	3	33%	33%	33%	4.6
	Overall	20	63%	25%	13%	4.6
Emerging Countries	Academic Top	28	38%	46%	15%	1.9
	Academic Middle	25	33%	43%	24%	0.1
	Academic Lower	26	27%	58%	11%	2.0
	All Academic	*79*	*34%*	*49%*	*17%*	*1.4*
	Medical/Health	70	41%	45%	14%	3.2
	Government	14	28%	34%	6%	3.4
	Corporate	26	36%	43%	21%	2.3
	Overall	189	36%	46%	15%	2.3
Overall	Academic Top	71	43%	35%	17%	1.9
	Academic Middle	88	32%	39%	27%	-0.6
	Academic Lower	91	36%	39%	24%	1.3
	All Academic	*250*	*37%*	*38%*	*23%*	*0.9*
	Medical/Health	290	28%	52%	16%	0.7
	Government	46	13%	58%	21%	-1.1
	Corporate	84	26%	47%	20%	0.7
	Overall	670	30%	47%	19%	0.6

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution

6.3 Medicine, Nursing and Allied Health Subject Areas (Academic only)

63% of Academic institutions stated that they teach Medicine, Nursing or Allied Health Studies. These institutions were asked to assess what proportion of their current Materials budget is spent on these subject areas specifically, and then forecast spending on this area for 2021.

In 2020, such institutions spent 29% of their Materials budget on these subject areas.

This figure is broadly comparable between the different regions. North American institutions invest the lower proportion of their materials budget on these subjects (25%), whist higher spending levels are reported in Europe (30%) and Asia Pacific (33%).

Lower-Tier Academic institutions have a higher percentage of expenditure on these subject areas (33%), in comparison to Top-Tier (28%) and Mid-Tier (25%) institutions.

Percentage Expenditure on Content for Medicine, Nursing and Allied Health Subject Areas

		Base *	% respondents predicting
Region	**Organisation**	**n**	**2021**
North America	Academic Top	17	24%
	Academic Middle	19	24%
	Academic Lower	23	27%
	All Academic	*59*	*25%*
Europe	Academic Top	16	34%
	Academic Middle	18	26%
	Academic Lower	14	29%
	All Academic	*48*	*30%*
Asia Pacific	Academic Top	10	30%
	Academic Middle	12	25%
	Academic Lower	13	43%
	All Academic	*35*	*33%*
South America	Academic Top	4	25%
	Academic Middle	3	27%
	Academic Lower	3	58%
	All Academic	*10*	*36%*
Middle East and Africa	Academic Top	2	18%
	Academic Middle	2	29%
	Academic Lower	1	10%
	All Academic	*5*	*21%*
Emerging Countries	Academic Top	*18*	25%
	Academic Middle	*11*	39%
	Academic Lower	*9*	30%
	All Academic	38	30%
Overall	Academic Top	*49*	28%
	Academic Middle	*54*	25%
	Academic Lower	*54*	33%
	All Academic	*157*	*29%*

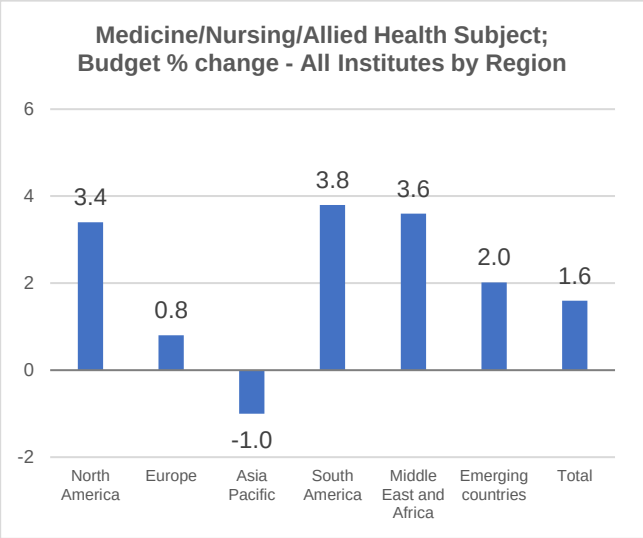
* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution

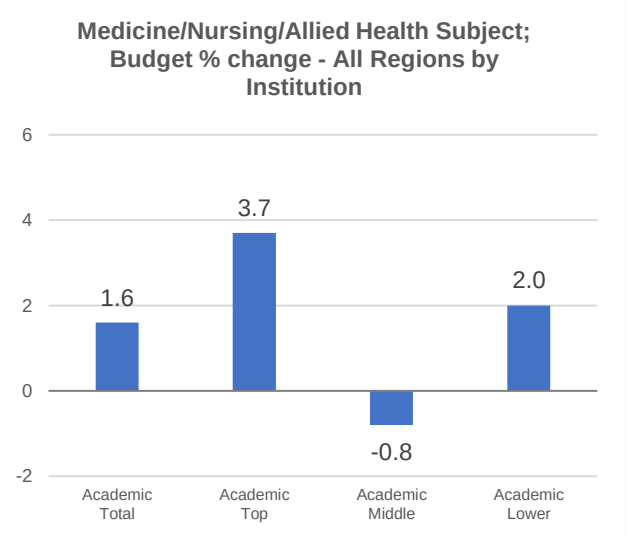
6.4 Medicine, Nursing and Allied Health Budget Predications for 2021 (Academic only)

Materials budget share for Medicine, Nursing and Allied Health subject content is forecast to increase by 1.6% in 2021.

- North America is predicting this budget to increase by 3.4% in this area compared to 0.8% in Europe and -1.0% in Asia Pacific. Larger increases are forecast in the Middle East & Africa (3.6%) and South America (3.8%)*. Collectively, Emerging countries have predicted a budget rise of 2.0% in this area.
- Forecasts in this area varied by type of institution, with Top-Tier academic bodies forecasting higher increases (3.7%).

Qualitative forecasts indicate that this budget will remain static for around half (55%) of all Academic institutions. A further 27% of institutions have predicted this budget to grow in 2021. There are 10% of academic institutions anticipating a reduction in such spending (7% in Europe, 10% in North America and 16% in Asia Pacific).





Base: 157 participants

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

Medicine/Nursing/Allied Health Subject; Budget change for 2021						
		Base*	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	17	59%	35%	6%	7.2
	Academic Middle	19	26%	53%	21%	0.4
	Academic Lower	23	35%	61%	4%	2.4
	All Academic	*59*	*40%*	*50%*	*10%*	*3.4*
Europe	Academic Top	16	13%	38%	13%	0.2
	Academic Middle	18	11%	78%	6%	0.1
	Academic Lower	14	29%	57%	0%	2.5
	All Academic	*48*	*16%*	*56%*	*7%*	*0.8*
Asia Pacific	Academic Top	10	20%	70%	0%	1.4
	Academic Middle	12	8%	50%	33%	-4.1
	Academic Lower	13	15%	69%	15%	0.0
	All Academic	*35*	*15%*	*63%*	*16%*	*-1.0*
South America	Academic Top	4	25%	50%	25%	3.3
	Academic Middle	3	33%	67%	0%	0.0
	Academic Lower	3	33%	67%	0%	6.7
	All Academic	*10*	*30%*	*60%*	*10%*	*3.8*
Middle East and Africa	Academic Top	2	50%	50%	0%	5.0
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	1	0%	100%	0%	0.0
	All Academic	*5*	*64%*	*36%*	*0%*	*3.6*
Emerging Countries	Academic Top	18	17%	57%	4%	2.3
	Academic Middle	11	32%	60%	0%	0.5
	Academic Lower	9	12%	67%	0%	3.5
	All Academic	*38*	*20%*	*60%*	*2%*	*2.0*
Overall	Academic Top	49	31%	46%	8%	3.7
	Academic Middle	54	21%	58%	17%	-0.8
	Academic Lower	54	28%	63%	6%	2.0
	All Academic	*157*	*27%*	*55%*	*10%*	*1.6*

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution

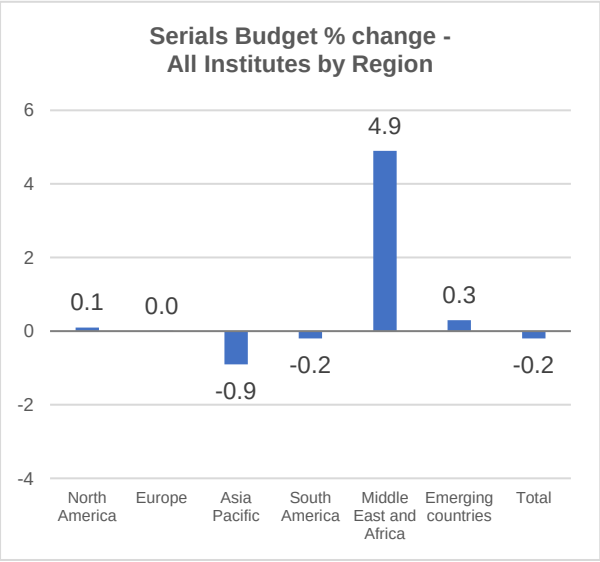
7 Serials and Journals

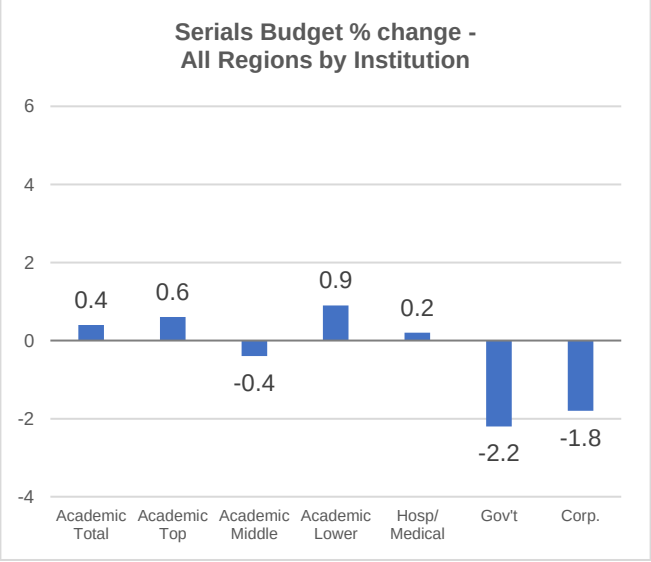
All librarians and information officers were asked about anticipated 2021 expenditure on serials, journals or ongoing subscriptions covering scientific content. By Serials and Journals, we are referring to repeating publications on a subject or area, typically monthly or quarterly and subscription based. This category also includes journal databases or platforms.

Serials/Journals budgets are projected to be flat, with an average decrease of 0.2% across all institutions surveyed, with some variations by region and type of institution.

- Budgets are projected to be flat in all regions, with the exception of Asia Pacific (-0.9%) and the Middle East & Africa (+4.9%)*.
- There was limited variation by type of institution, with the exception of Government and Corporate institutions who projected a decrease to their serials budget in 2021 (-2.1% & -1.8% respectively).
- There were few marked changes in 2021 serials/journals budgets compared to 2020 across most sectors. The only exception to this was the Government sector, which decreased from 2.1% in 2020 to -2.2% in 2021.

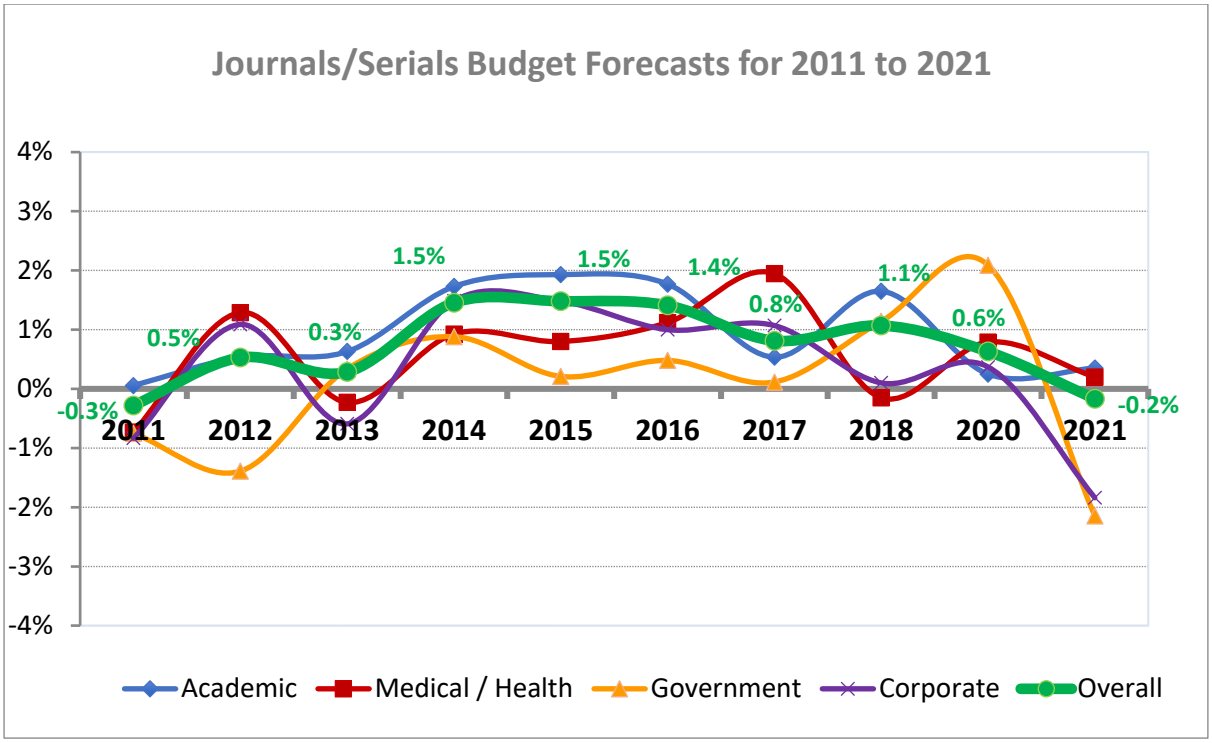
Qualitative forecasts indicate that circa 1 in 2 (52%) of institutions believe that their budgets will remain static (compared to 48% in 2020), 22% predict that their budgets will increase and 17% expect budgets to decrease. This is similar to the pattern observed for 2020 budgets, although those indicating budgets would increase has fallen from 33% in 2020 to 22% in 2021.





Base: 670 participants

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

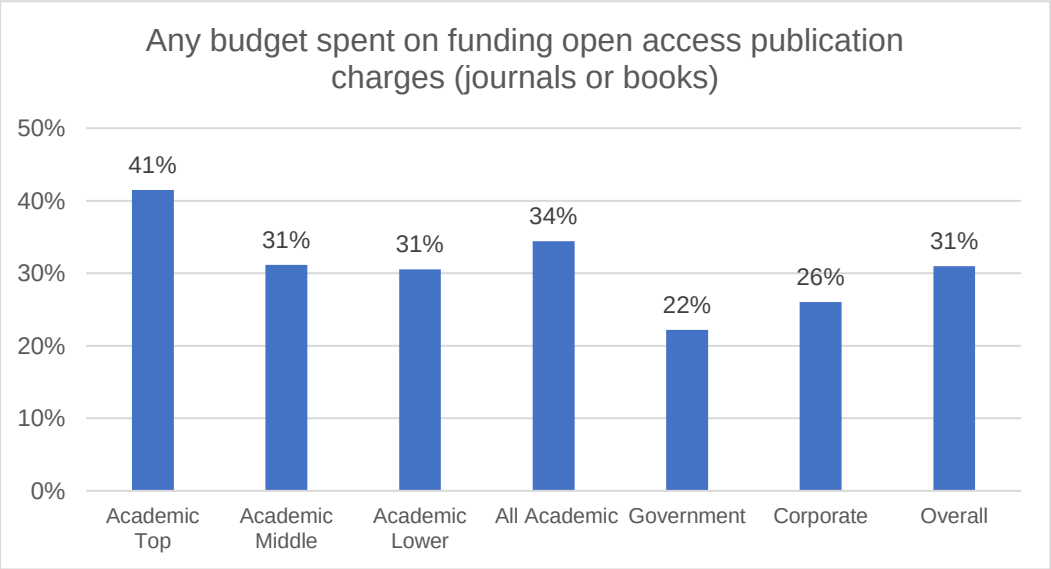

Journals/Serials Budget Forecasts for 2011 to 2021
4%
3%
2%
1%
0%
-1%
-2%
-3%
-4%
2011
2012
2013
2014
2015
2016
2017
2018
2020
2021
-0.3%
0.5%
0.3%
1.5%
1.5%
1.4%
0.8%
1.1%
0.6%
-0.2%
Academic
Medical / Health
Government
Corporate
Overall

Serials/Journals Budget Change for 2021						
		Base *	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	24	38%	38%	17%	2.8
	Academic Middle	28	29%	50%	18%	1.0
	Academic Lower	26	31%	46%	19%	0.9
	All Academic	*78*	*32%*	*45%*	*18%*	*1.6*
	Medical/Health	84	23%	52%	18%	0.3
	Government	11	0%	55%	27%	-3.2
	Corporate	19	5%	63%	21%	-3.3
	Overall	192	22%	51%	19%	0.1
Europe	Academic Top	20	40%	35%	10%	1.3
	Academic Middle	26	46%	42%	12%	1.8
	Academic Lower	27	22%	59%	15%	0.2
	All Academic	*73*	*36%*	*46%*	*12%*	*1.1*
	Medical/Health	88	25%	55%	9%	1.3
	Government	9	0%	67%	33%	-5.6
	Corporate	23	9%	61%	26%	-3.6
	Overall	193	25%	53%	14%	0.0
Asia Pacific	Academic Top	21	14%	52%	29%	-2.9
	Academic Middle	28	14%	39%	43%	-4.2
	Academic Lower	31	23%	61%	16%	0.4
	All Academic	*80*	*17%*	*51%*	*29%*	*-2.2*
	Medical/Health	96	16%	63%	15%	-0.4
	Government	23	30%	57%	9%	1.4
	Corporate	33	27%	52%	18%	-0.5
	Overall	232	19%	56%	20%	-0.9
South America	Academic Top	4	0%	75%	0%	0.0
	Academic Middle	4	25%	75%	0%	2.3
	Academic Lower	4	25%	75%	0%	7.5
	All Academic	*12*	*17%*	*75%*	*0%*	*3.7*
	Medical/Health	14	7%	36%	21%	-4.6
	Government	1	0%	0%	0%	0.0
	Corporate	6	33%	17%	17%	2.8
	Overall	33	13%	45%	11%	-0.2
Middle East and Africa	Academic Top	2	50%	50%	0%	7.5
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	3	33%	67%	0%	3.0
	All Academic	*7*	*61%*	*39%*	*0%*	*4.8*
	Medical/Health	8	38%	13%	13%	5.2
	Government	2	50%	0%	50%	0.0
	Corporate	3	33%	33%	0%	6.7
	Overall	20	47%	25%	8%	4.9
Emerging Countries	Academic Top	28	15%	60%	23%	-1.3
	Academic Middle	25	26%	50%	24%	-0.5
	Academic Lower	26	19%	66%	11%	1.6
	All Academic	*79*	*19%*	*59%*	*20%*	*-0.3*
	Medical/Health	70	22%	47%	14%	1.3
	Government	14	28%	28%	17%	-0.9
	Corporate	26	30%	45%	16%	0.2
	Overall	189	22%	51%	17%	0.3
Overall	Academic Top	71	29%	44%	18%	0.6
	Academic Middle	88	31%	44%	23%	-0.4
	Academic Lower	91	25%	57%	15%	0.9
	All Academic	*250*	*28%*	*48%*	*19%*	*0.4*
	Medical/Health	290	21%	55%	14%	0.2
	Government	46	12%	54%	22%	-2.2
	Corporate	84	16%	55%	21%	-1.8
	Overall	670	22%	52%	17%	-0.2

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

8 Open Access

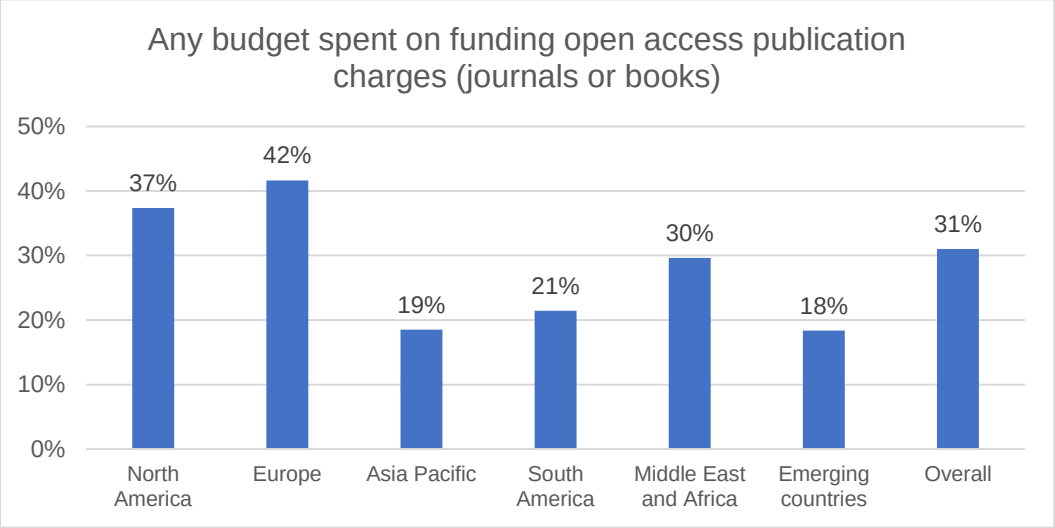
All librarians and information officers in Academic, Government and Corporate institutions were asked about **Open Access** (i.e. typically when research or books are made free to access, with costs covered by a fee charged to the author which may be reimbursed by some funding bodies or institutions).



Base: Academic Top 71; Academic Middle 88; Academic Lower 91; Academic Overall 250; Government 46; Corporate 84; Total 380

Circa 1 in 3 institutions (31%) reported that a part of their library and information services budget was spent on funding such open access publication charges, in either journals or books. However, no attempt was made to quantify the proportion of budget that was allocated to this activity.

This practice was more common amongst Top-Tier Academic institutions. It was least likely to happen in Government institutions.



Base: North America 108; Europe 105; Asia Pacific 1136; Middle East & Africa 12; Emerging Countries 119; Total 380

Such activity was more likely to be reported by North American and European institutions, compared to those based in Asia Pacific region (37%, 42% and 19% respectively).

Actions as a result of more content being made available through Open Access					
	Base	Saved money which has been allocated back to your institution	Used any savings to cover Open Access Article Process Charges managed by the author	Other impact	No impact
Academic Top	31	48%	66%	17%	10%
Academic Middle	28	32%	26%	32%	25%
Academic Lower	28	47%	39%	21%	34%
All Academic	*87*	*43%*	*46%*	*23%*	*17%*
Medical/Health	0	0%	0%	0%	0%
Government	9	47%	33%	14%	19%
Corporate	21	59%	25%	5%	32%
Overall	***117***	46%	41%	18%	20%

Librarians and information officers in institutions that cover some open access publication charges were asked about the potential impact of this. Nearly 1 in 2 (46%) said this had saved money which had been allocated back to their institution, with circa 2 in 5 (41%) saying that their institution had used savings achieved to cover author charges.

Actions as a result of more content being made available through Open Access					
	Base	Saved money which has been allocated back to your institution	Used any savings to cover Open Access Article Process Charges managed by the author	Other impact	No impact
North America	41	62%	54%	7%	15%
Europe	44	29%	41%	36%	19%
Asia Pacific	25	62%	16%	12%	24%
South America	4	0%	25%	0%	75%
Middle East and Africa	3	25%	75%	0%	0%
Emerging countries	20	44%	27%	0%	40%
Overall	**117**	**46%**	**41%**	**18%**	**20%**

North American and Asia Pacific institutions were more likely to allocate savings back to their institution (62%) compared to those in Europe (29%).

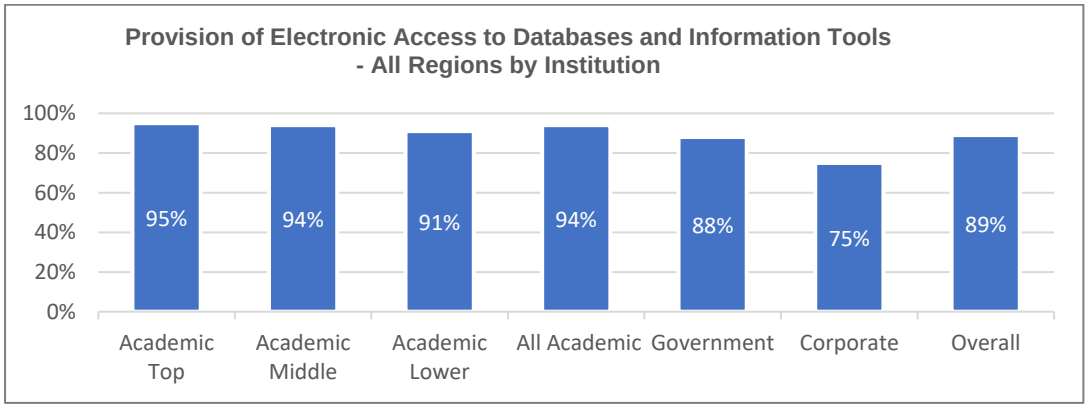
9 Databases and Information Tools (including Abstracting and Indexing Services)

9.1 Provision of Electronic access

All librarians and information officers in Academic, Government and Corporate institutions were asked about their use of databases and information tools (including bibliographic databases and abstracting or indexing services), and, if applicable, their anticipated expenditure in this area in 2021.

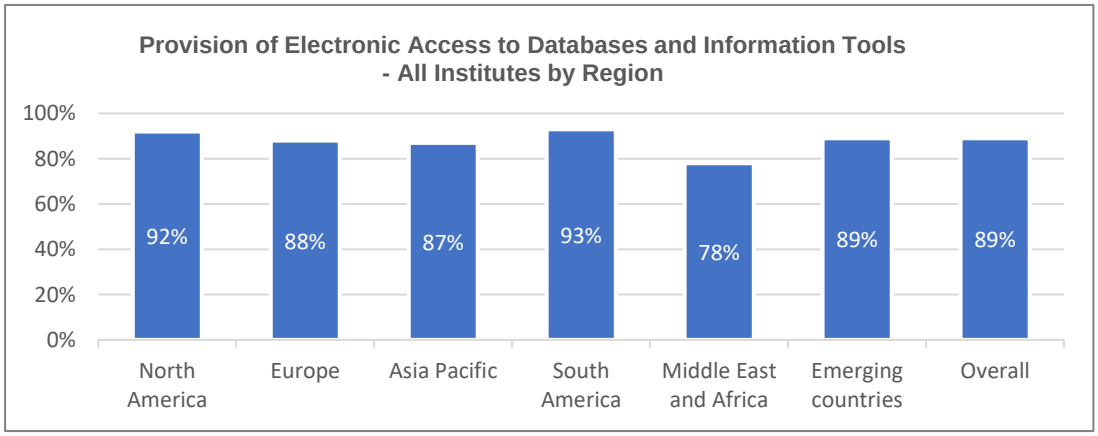
For this category, we are referring to databases and information tools (including bibliographic databases and abstracting or indexing databases) used to search for scholarly content across academic books, conference, journals. Tools could include specialist search databases covering chemistry, engineering, drug interactions, as well as online all-in-one library searching tools.

A majority of institutions (89%) currently provide electronic access to such services, similar to the 2020 study (85%) and this was more widespread amongst Academic institutions (94%), with Corporate institutions being the least likely to offer this (75%).



Base: Academic Top 71; Academic Middle 88; Academic Lower 91; Government 46; Corporate 84; Total 380.

The provision of such services was broadly comparable across the three main regions (North America, Europe and Asia Pacific).



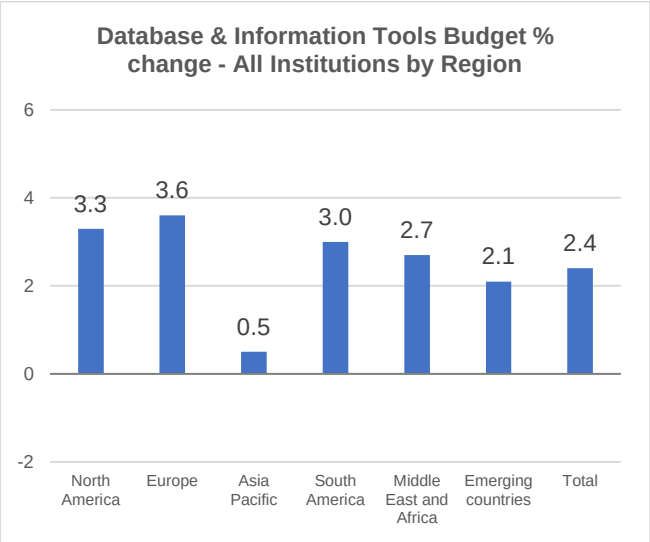
Base: North America 108; Europe 105; Asia Pacific 136; South America 19; Middle East & Africa 19; Emerging Countries 119; Total 380.

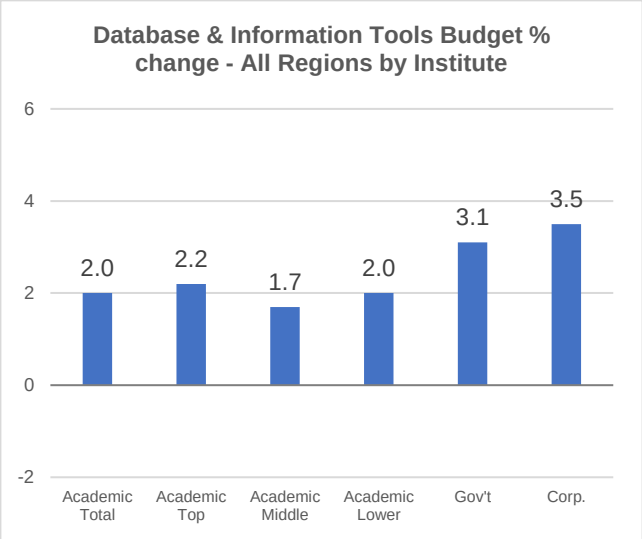
9.2 Databases and Information Tools (including A&I) – 2021 Budget Predictions

Amongst institutions using such services, spending on databases and information tools in 2021 is projected to increase by an average of 2.4%.

- In Asia Pacific projected budgets are flat overall (0.5%), with increases anticipated in North America Europe (3.3%) and Europe (3.6%).
- 2021 budgets varied little by type of institution.

Qualitative forecasts indicate that the majority (51%) of institutes believe that their budgets will remain static compared to 50% in 2020, 34% predict that their budgets will increase and 11% expect budgets to decrease.





Base: 336 participants

Database & Information Tools (including A&I) Budget Change for 2021						
		Base *	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	24	50%	42%	8%	4.0
	Academic Middle	25	36%	48%	16%	3.6
	Academic Lower	24	38%	33%	25%	2.6
	All Academic	*73*	*41%*	*41%*	*16%*	*3.5*
	Medical/Health	0	0%	0%	0%	0.0
	Government	11	36%	45%	18%	2.1
	Corporate	16	50%	19%	19%	3.8
	Overall	100	43%	37%	17%	3.3
Europe	Academic Top	19	42%	42%	5%	1.6
	Academic Middle	26	46%	46%	8%	3.6
	Academic Lower	26	42%	35%	4%	3.8
	All Academic	*71*	*44%*	*41%*	*6%*	*3.0*
	Medical/Health	0	0%	0%	0%	0.0
	Government	7	29%	71%	0%	5.7
	Corporate	15	47%	53%	0%	4.3
	Overall	93	42%	46%	4%	3.6
Asia Pacific	Academic Top	19	32%	53%	16%	1.0
	Academic Middle	26	19%	46%	31%	-1.7
	Academic Lower	27	7%	85%	7%	-0.1
	All Academic	*72*	*20%*	*61%*	*18%*	*-0.3*
	Medical/Health	0	0%	0%	0%	0.0
	Government	19	21%	68%	0%	2.9
	Corporate	26	27%	65%	4%	1.5
	Overall	117	21%	63%	13%	0.5
South America	Academic Top	4	0%	50%	25%	0.0
	Academic Middle	4	0%	100%	0%	0.0
	Academic Lower	4	25%	75%	0%	5.0
	All Academic	*12*	*8%*	*75%*	*8%*	*2.2*
	Medical/Health	0	0%	0%	0%	0.0
	Government	1	0%	100%	0%	0.0
	Corporate	4	75%	25%	0%	10.3
	Overall	17	17%	71%	6%	3.0
Middle East and Africa	Academic Top	2	0%	100%	0%	0.0
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	2	0%	100%	0%	0.0
	All Academic	*6*	*38%*	*63%*	*0%*	*0.7*
	Medical/Health	0	0%	0%	0%	0.0
	Government	2	0%	100%	0%	0.0
	Corporate	1	100%	0%	0%	20.0
	Overall	9	38%	62%	0%	2.7
Emerging Countries	Academic Top	27	27%	60%	11%	1.3
	Academic Middle	24	35%	49%	16%	1.3
	Academic Lower	22	13%	73%	9%	0.3
	All Academic	*73*	*26%*	*60%*	*12%*	*1.0*
	Medical/Health	0	0%	0%	0%	0.0
	Government	12	26%	61%	0%	5.2
	Corporate	19	41%	59%	0%	5.1
	Overall	104	28%	60%	9%	2.1
Overall	Academic Top	68	37%	48%	10%	2.2
	Academic Middle	83	34%	48%	17%	1.7
	Academic Lower	83	27%	55%	11%	2.0
	All Academic	*234*	*33%*	*50%*	*13%*	*2.0*
	Medical/Health	0	0%	0%	0%	0.0
	Government	40	26%	65%	6%	3.1
	Corporate	62	42%	45%	8%	3.5
	Overall	336	34%	51%	11%	2.4

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

9.3 Research Data Management: current provision and future plans

All librarians and information officers were asked about **Research Data Management (RDM)** tools or services (i.e. software solutions that allow researchers to store, share, publish and find research data), to establish if their institution currently provides this or plans to do so in the future.

Provision of RDM: by Institution Type

Organisation	Provision		
	Currently provide	Plan to provide	Not provided
Academic Top	41%	19%	40%
Academic Middle	29%	22%	49%
Academic Lower	24%	14%	62%
All Academic	*31%*	*19%*	*50%*
Medical/Health	25%	13%	62%
Government	22%	21%	57%
Corporate	19%	15%	67%
Overall	26%	16%	58%

Provision of RDM: by Region

Region	Provision		
	Currently provide	Plan to provide	Not provided
North America	36%	12%	52%
Europe	30%	16%	55%
Asia Pacific	15%	17%	68%
South America	31%	23%	46%
Middle East & Africa	33%	24%	44%
Emerging Countries	23%	23%	54%
Overall	26%	16%	58%

Base: 670 participants

26% of institutions currently provide RDM tools or services, up from 21% in 2020, with a further 16% planning to do so in the future. Higher levels of current and planned adoption were noted amongst Academic institutions, with Corporate institutions being the least likely to provide this.

RDM systems were more commonplace outside Asia Pacific.

9.4 Institutional Repositories: current provision and future plans

All librarians and information officers were asked about **Institutional Repository** tools or services (i.e. archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution or organisation, particularly a university or research institution), to establish if their institution currently provides this or plans to do so in the future.

Provision of Institutional Repositories by Institution Type

Organisation	Provision		
	Currently provide	Plan to provide	Not provided
Academic Top	71%	17%	12%
Academic Middle	70%	14%	17%
Academic Lower	66%	14%	20%
All Academic	*69%*	*15%*	*16%*
Medical/Health	24%	16%	60%
Government	62%	10%	28%
Corporate	35%	10%	55%
Overall	45%	14%	41%

Provision of Institutional Repositories by Region

Region	Provision		
	Currently provide	Plan to provide	Not provided
North America	47%	15%	38%
Europe	46%	11%	43%
Asia Pacific	39%	17%	44%
South America	46%	24%	30%
Middle East & Africa	68%	3%	28%
Emerging Countries	48%	20%	31%
Overall	45%	14%	41%

Base: 670 participants

Institutional Repositories were one of the most widely used tools or services, with 45% of institutions currently providing, and a further 10% planning to do so in the future. Higher levels of current and planned usage were noted amongst Academic institutions (69%), with Medical/Health institutions being the least likely to provide this (24%).

There was limited variation in usage across regions.

9.5 Current Research Information Systems (CRIS): current provision and future plans

All librarians and information officers were asked about **Current Research Information Systems (CRIS)** (i.e. information system to store, manage and exchange contextual metadata for research activities undertaken within an institution or organisation), to establish if their institution currently provides such systems or plans to do so in the future.

Provision of Current Research Information Systems: by Institution Type

Organisation	Provision		
	Currently provide	Plan to provide	Not provided
Academic Top	38%	16%	47%
Academic Middle	32%	21%	47%
Academic Lower	22%	10%	68%
All Academic	*31%*	*15%*	*54%*
Medical/Health	22%	8%	70%
Government	22%	10%	68%
Corporate	21%	8%	71%
Overall	25%	11%	64%

Provision of Current Research Information Systems: by Region

Region	Provision		
	Currently provide	Plan to provide	Not provided
North America	31%	14%	55%
Europe	25%	9%	67%
Asia Pacific	19%	9%	71%
South America	20%	28%	52%
Middle East & Africa	36%	3%	61%
Emerging Countries	31%	15%	54%
Overall	25%	11%	64%

Base: 670 participants

CRIS are currently provided by 1 in 4 institutions (25%) compared to 21% in 2020, with 1 in 10 (11%) having plans to provide this in the future. Current and future adoption was higher among Top and Mid-Tier Academic institutions. Of the three main regions, Asia Pacific institutions were the least likely to have this system in place.

9.6 Research Performance Analytics: current provision and future plans

All librarians and information officers were asked about **Research Performance Analytics** tools or services (i.e. dedicated tools used to undertake sophisticated research performance analyses typically to track research productivity and return on research value), to establish if their institution currently provides this or plans to do so in the future.

Provision of Research Performance Analytics: by Institution Type

Organisation	Provision		
	Currently provide	Plan to provide	Not provided
Academic Top	56%	25%	20%
Academic Middle	33%	17%	51%
Academic Lower	24%	9%	67%
All Academic	*37%*	*17%*	*46%*
Medical/Health	23%	12%	66%
Government	26%	7%	67%
Corporate	23%	12%	65%
Overall	28%	13%	58%

Provision of Research Performance Analytics: by Region

Region	Provision		
	Currently provide	Plan to provide	Not provided
North America	32%	17%	52%
Europe	31%	10%	59%
Asia Pacific	24%	13%	63%
South America	14%	18%	67%
Middle East & Africa	47%	10%	44%
Emerging Countries	36%	15%	48%
Overall	28%	13%	58%

Base: 670 participants

Circa 1 in 4 (28%) of institutions currently provide such tools or services, little changed since last year, with a further 13% planning to do so in the future. Higher levels of current and planned adoption were noted amongst Academic institutions, although this did vary by size.

Across the three main regions, Research Performance Analytics tools or services were more widely used in North America and Europe compared to Asia Pacific. Such tools were most widely used in the Middle East & Africa.

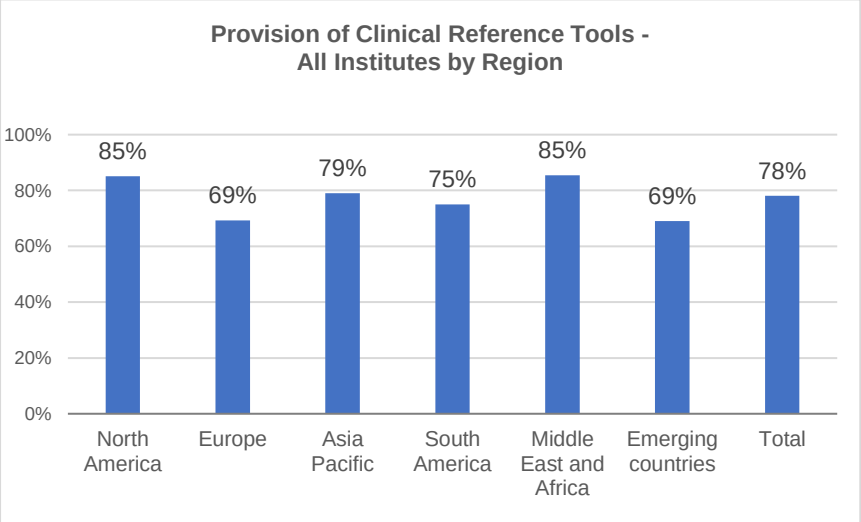
10 Medical Information Tools

10.1 Current Medical Information Tools used

Librarians and information officers in Hospitals or Medical Trusts were asked about different medical information tools, there were three categories of tools.

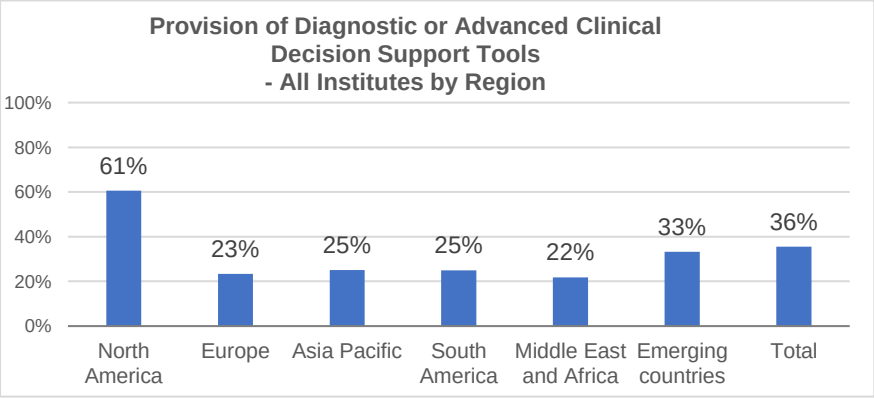
10.1.1 Clinical Reference Tools

The first of these, Clinical Reference Tools, are defined as: multi-speciality tools that allow physicians to access clinically relevant information, across journals, books and guidelines. It also includes drug information databases, order sets (pre-packaged groups of orders that apply to a specified diagnosis) and care plans ('templates' that define the essentials of care – nutrition, mobility etc.).



Base: North America 143; Europe 136; Asia Pacific 131; South America 24; ME&A 13; Emerging Countries 108, Total 447

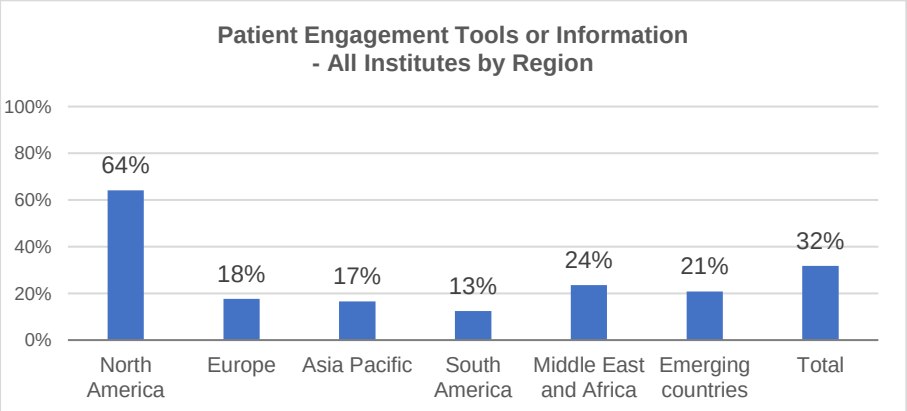
10.1.2 Diagnostic or Advanced Clinical Decision Support tools



Base: North America 143; Europe 136; Asia Pacific 131; South America 24; ME&A 13; Emerging Countries 108, Total 447

10.1.3 Patient Engagement Tools or Information

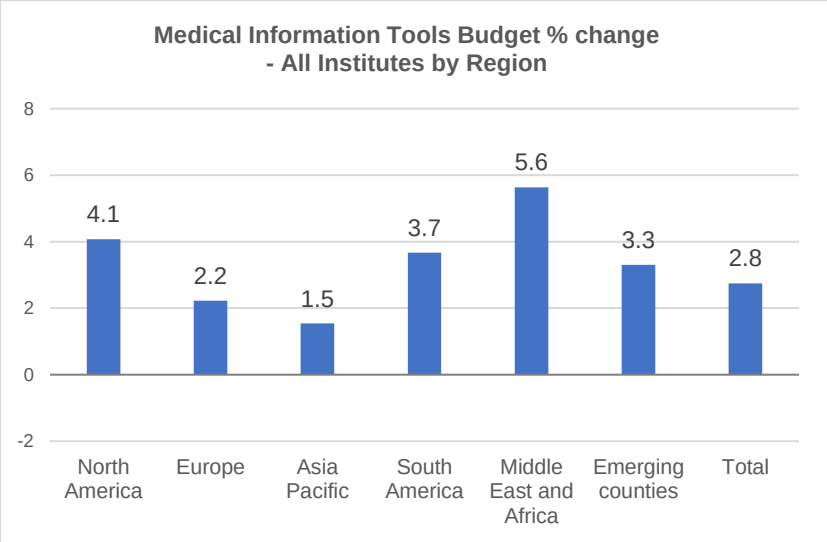
Patient engagement tools or information (enabling patients to be engaged in the healthcare decision-making process and administration of their healthcare) were used by a similar proportion, with circa 1 in 3 (32%) claiming to use them. Use of such tools varied by region: North America (64%), Europe (18%) and Asia Pacific (17%).



Base: North America 143; Europe 136; Asia Pacific 131; South America 24; ME&A 13; Emerging Countries 108, Total 447

10.1.4 Medical Information Tools – Budget Predictions 2021

Hospitals and Medical Trusts anticipated that expenditure on Medical Information Tools would increase by an average of 4.1% in 2021. Some variations were noted by geography, with North American institutions predicting higher increases compared to Europe and Asia Pacific.



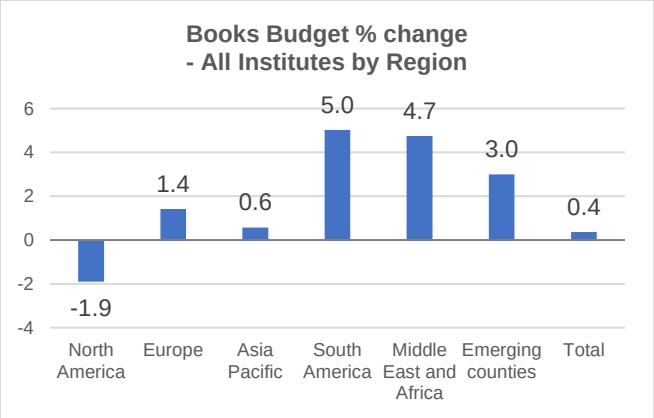
Base: North America 143; Europe 136; Asia Pacific 131; South America 24; ME&A 13; Emerging Countries 108, Total 447

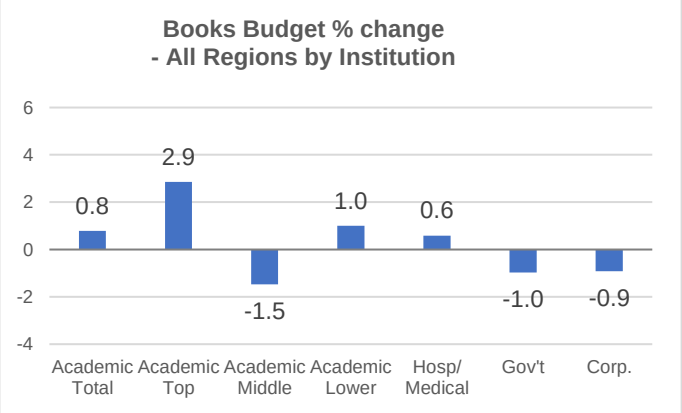
Qualitative forecasts indicate that the majority (59%) of institutes believe that their budgets will remain static in this area (compared to 57% in 2020), 23% predict that their budgets will increase and 2% expect budgets to decrease.

Medical Information Tools: Budget change for 2021						
		Base	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
Region	North America	143	32%	53%	3%	4.1
	Europe	136	14%	60%	1%	2.2
	Asia Pacific	131	20%	66%	4%	1.5
	South America	24	17%	58%	0%	3.7
	Middle East and Africa	13	47%	37%	7%	5.6
	Emerging countries	108	19%	56%	1%	3.3
Total		447	23%	59%	2%	2.8

11 Books

All librarians and information officers were asked about anticipated 2021 expenditure on books (including printed books, e-books, monographs and book series).



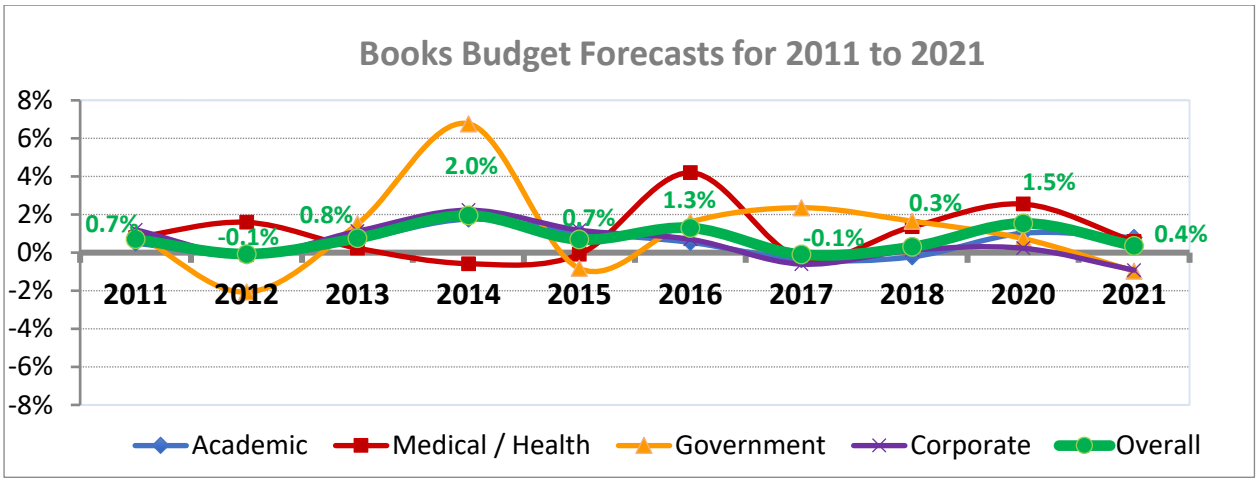


Base: 670 participants.

Book budgets are projected to increase by an average of 0.4% across all institutions surveyed. However, there were some variations by region and type of institution.

- Institutions in North America are projecting a decline of 1.9% in their books budget, whereas in Europe and Asia Pacific increases of 1.4% and 0.6% respectively are projected. Other regions estimated increases of circa 5%*.
- There was limited variation by type of institution, with Top-Tier Academic institutions projecting the largest increase to their books budget in 2021. Budgets are set to contract amongst Government, Corporate and Mid-Tier Academic institutions.
- There were no marked changes in 2021 book budgets compared to 2020, with the exception of Asia Pacific (5.2% 2020 vs. 0.6% 2021).

Qualitative forecasts indicate that the majority (57%) of institutes believe that their budgets will remain static, 22% predict that their budgets will increase and 16% expect budgets to decrease. This is similar to the pattern observed for 2020 budgets. Note remaining respondents were unable to say.



* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

Books Budget Change for 2021						
		Base *	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	24	38%	33%	29%	2.3
	Academic Middle	28	14%	54%	32%	-4.4
	Academic Lower	26	27%	35%	38%	-2.8
	All Academic	*78*	*26%*	*41%*	*33%*	*-1.6*
	Medical/Health	84	19%	62%	13%	-0.9
	Government	11	9%	27%	64%	-5.6
	Corporate	19	21%	42%	26%	-3.9
	Overall	192	21%	49%	26%	-1.9
Europe	Academic Top	20	35%	40%	15%	3.7
	Academic Middle	26	38%	42%	12%	4.4
	Academic Lower	27	22%	52%	22%	1.2
	All Academic	*73*	*32%*	*45%*	*16%*	*3.0*
	Medical/Health	88	16%	70%	6%	0.9
	Government	9	11%	67%	11%	1.3
	Corporate	23	13%	65%	22%	-1.2
	Overall	193	21%	60%	12%	1.4
Asia Pacific	Academic Top	21	38%	48%	14%	2.7
	Academic Middle	28	25%	36%	39%	-4.8
	Academic Lower	31	26%	65%	10%	2.4
	All Academic	*80*	*30%*	*49%*	*21%*	*0.0*
	Medical/Health	96	18%	72%	8%	0.8
	Government	23	17%	61%	13%	1.2
	Corporate	33	9%	70%	15%	0.8
	Overall	232	21%	62%	14%	0.6
South America	Academic Top	4	25%	75%	0%	0.0
	Academic Middle	4	25%	75%	0%	8.3
	Academic Lower	4	50%	50%	0%	11.3
	All Academic	*12*	*33%*	*67%*	*0%*	*7.0*
	Medical/Health	14	7%	50%	7%	1.7
	Government	1	0%	0%	0%	0.0
	Corporate	6	50%	33%	0%	9.0
	Overall	33	21%	50%	3%	5.0
Middle East and Africa	Academic Top	2	50%	50%	0%	7.5
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	3	0%	100%	0%	0.0
	All Academic	*7*	*50%*	*50%*	*0%*	*3.6*
	Medical/Health	8	50%	38%	0%	9.6
	Government	2	50%	0%	50%	3.5
	Corporate	3	0%	67%	33%	-1.7
	Overall	20	44%	44%	8%	4.7
Emerging Countries	Academic Top	28	39%	53%	8%	3.1
	Academic Middle	25	34%	43%	20%	-0.5
	Academic Lower	26	24%	65%	7%	2.8
	All Academic	*79*	*33%*	*53%*	*11%*	*2.0*
	Medical/Health	70	28%	54%	6%	4.4
	Government	14	17%	40%	11%	2.4
	Corporate	26	25%	55%	13%	3.0
	Overall	189	29%	53%	9%	3.0
Overall	Academic Top	71	37%	43%	18%	2.9
	Academic Middle	88	28%	44%	26%	-1.5
	Academic Lower	91	25%	53%	21%	1.0
	All Academic	*250*	*30%*	*46%*	*22%*	*0.8*
	Medical/Health	290	18%	66%	9%	0.6
	Government	46	13%	48%	28%	-1.0
	Corporate	84	15%	59%	20%	-0.9
	Overall	670	22%	57%	16%	0.4

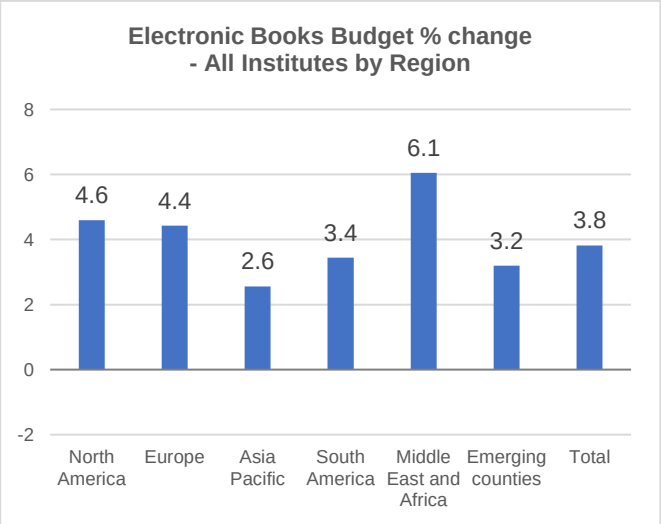
*Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

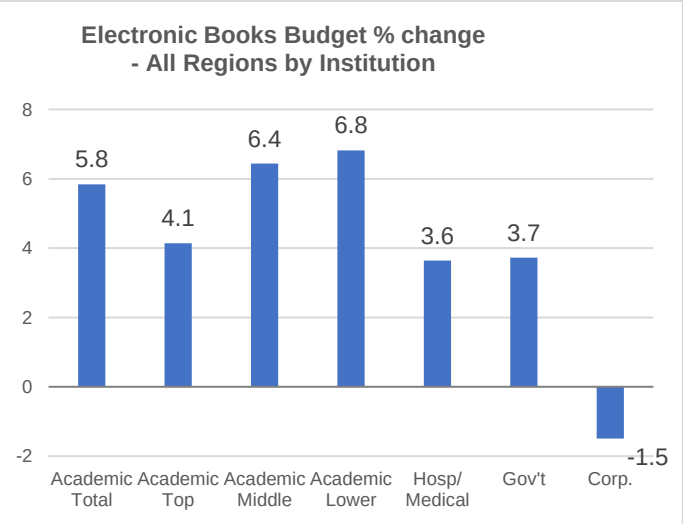
11.1 Electronic books

All librarians and information officers were asked about the proportion of their current books spend which is allocated to electronic books. Across all institutions, circa 23% of the current spend is on electronic resources and there is little change from the previous wave of research (24.7% for 2020 budget).

Library Book Budget – current % spent on electronic books												
Region	**Organisation**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2019**	**2020**
Overall	Academic Top	8.3	14.1	22.4	18.3	19.9	27.8	30.9	27.9	30.7	30.6	21.6
	Academic Middle	8.5	9.0	14.8	17.7	16.8	22.1	25.7	26.7	27.0	26.0	32.2
	Academic Lower	8.0	7.1	15.7	15.4	19.9	25.3	24.7	23.1	29.7	24.6	31.8
	All Academic	*8.3*	*10.0*	*17.6*	*17.1*	*18.9*	*25.0*	*27.0*	*25.9*	*29.1*	*27.1*	*28.5*
	Medical/Health	6.5	4.8	15.0	17.5	21.0	33.9	36.4	32.0	29.5	24.0	19.7
	Government	2.4	9.4	10.9	7.7	11.8	24.2	28.7	24.5	18.3	22.3	24.2
	Corporate	2.7	11.5	16.8	11.5	20.9	26.6	34.1	26.1	25.6	21.7	14.2
	Overall	**6.6**	**9.4**	**16.3**	**15.5**	**18.8**	**26.7**	**29.7**	**26.7**	**27.5**	**24.7**	**22.6**

All librarians and information officers were asked about anticipated 2021 expenditure on electronic books.





Base: 670 participants

Electronic book budgets are projected to increase by an average of 3.8% across all institutions surveyed.

- This was broadly consistent across all regions*.
- There was limited variation by type of institution, with exception of Corporate institutions projecting a decrease to their electronic books budget in 2020.
- A fall in overall 2021 electronic book budgets was noted compared to 2020 (3.8% and 4.9% respectively)

Qualitative forecasts indicate that the majority (56%) of institutes believe that their electronic books budgets will remain static (compared to 57% in 2020), 30% predict that their budgets will increase and 6% expect budgets to decrease.

Electronic Books Budget Change for 2021						
		Base *	*Qualitative Predictions*			*Quantitative Predictions*
			% respondents predicting			
Region	**Organisation**	**n**	**Increase**	**Static**	**Decrease**	**% Budget Change**
North America	Academic Top	24	63%	38%	0%	6.9
	Academic Middle	28	57%	29%	7%	12.6
	Academic Lower	26	54%	38%	8%	7.1
	All Academic	*78*	*58%*	*35%*	*5%*	*8.8*
	Medical/Health	84	25%	61%	8%	2.2
	Government	11	36%	45%	18%	5.6
	Corporate	19	42%	37%	5%	-2.1
	Overall	192	40%	47%	7%	4.6
Europe	Academic Top	20	35%	45%	0%	5.2
	Academic Middle	26	58%	42%	0%	10.2
	Academic Lower	27	56%	22%	11%	8.6
	All Academic	*73*	*49%*	*37%*	*4%*	*8.2*
	Medical/Health	88	22%	64%	2%	4.7
	Government	9	22%	78%	0%	3.3
	Corporate	23	4%	78%	17%	-5.5
	Overall	193	30%	56%	5%	4.4
Asia Pacific	Academic Top	21	29%	52%	10%	0.4
	Academic Middle	28	25%	43%	25%	-2.0
	Academic Lower	31	29%	65%	6%	4.7
	All Academic	*80*	*28%*	*53%*	*14%*	*1.2*
	Medical/Health	96	18%	73%	4%	3.7
	Government	23	22%	70%	0%	2.6
	Corporate	33	24%	70%	0%	2.2
	Overall	232	22%	65%	7%	2.6
South America	Academic Top	4	25%	75%	0%	0.0
	Academic Middle	4	25%	75%	0%	5.0
	Academic Lower	4	50%	50%	0%	7.5
	All Academic	*12*	*33%*	*67%*	*0%*	*4.5*
	Medical/Health	14	7%	64%	0%	2.8
	Government	1	0%	0%	0%	0.0
	Corporate	6	17%	33%	0%	0.0
	Overall	33	17%	56%	0%	3.4
Middle East and Africa	Academic Top	2	50%	50%	0%	7.5
	Academic Middle	2	100%	0%	0%	3.0
	Academic Lower	3	67%	33%	0%	11.7
	All Academic	*7*	*72%*	*28%*	*0%*	*8.3*
	Medical/Health	8	50%	50%	0%	7.5
	Government	2	0%	100%	0%	0.0
	Corporate	3	0%	100%	0%	0.0
	Overall	20	49%	51%	0%	6.1

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

Emerging Countries	Academic Top	28	29%	53%	8%	1.5
	Academic Middle	25	33%	50%	12%	-0.5
	Academic Lower	26	23%	62%	11%	1.4
	All Academic	*79*	*29%*	*55%*	*10%*	*0.9*
	Medical/Health	70	25%	58%	3%	6.9
	Government	14	23%	45%	0%	4.2
	Corporate	26	19%	68%	5%	0.5
	Overall	189	26%	57%	6%	3.2
Overall	Academic Top	71	41%	47%	3%	4.1
	Academic Middle	88	46%	39%	11%	6.4
	Academic Lower	91	46%	43%	8%	6.8
	All Academic	*250*	*44%*	*43%*	*7%*	*5.8*
	Medical/Health	290	21%	66%	5%	3.6
	Government	46	24%	62%	5%	3.7
	Corporate	84	23%	62%	6%	-1.5
	Overall	670	30%	56%	6%	3.8

* Sample sizes for South America and Middle East & Africa are small and should be interpreted with caution.

12 Appendix

12.1 Definition Index: Materials and Information Spend

Journals/Serials: are repeating publications that deal with a particular subject or professional activity. Typically, issues are published on regular intervals, monthly or quarterly. Journals are typically scholarly and publish research articles that record predominantly scientific developments. Journals or serials are often subscription-based, the library pay an annual fee to subscribe to all the issues published in a year. Organizations may buy all the journals from one publisher, sometimes these are called journal databases or journal platforms provided by a single publisher.

Databases and Information Tools: Enable users to find and access information, including:

- **Abstracting and Indexing Databases:** bibliographic databases that allow users to search across quality assured publications (journals) to find scholarly content. This does not include full content journal databases.
- **Discipline Specific Tools:** databases that focus on areas such as engineering or chemistry; they also support searches for drug interactions or by chemical formulae.
- **Discovery Services Tools:** online library searching tools that provide an all-in-one interface for finding both local library items and online subscription and open access resources.
- **Medical Tools:** provide access to content for physicians and patients to improve patient care. Examples include Clinical reference tools, Diagnostic or Advanced Clinical Decision Support tools, and Patient Engagement tools. Three categories of tools were included:
    - **Clinical Reference Tools:** These are often multi-specialty tools that allow physicians to access clinically-relevant information, across journals, books and guidelines, they also include drug information databases, order sets (prepackaged groups of orders that apply to a specified diagnosis) and care plans (‘templates’ that define the essentials of care – nutrition, mobility etc.).
    - **Diagnostic or Advanced Clinical Decision Support Tools:** These are tools that a clinician can utilize often at the point-of-care to enable decision making. They are often easy to use and contain filtered information
    - **Patient Engagement Tools or Information:** These are resources that enable patients to be engaged in their healthcare decision-making process. Tools that use a variety of channels (smartphone app, social media etc.) to enable providers to e-connect with patients sending appointment reminders, educating, enabling medication adherence via reminders and collecting data.

Books, including e-books: normally are written for scholars/researchers/professionals to share research findings or provide foundational knowledge in particular fields or textbooks for faculty and students to use in courses. Books can sometimes be part of a series.

12.2 Definition Index: Research Data Management

Research Data Management: Software solutions that allow researchers to store, share, publish and find research data.

Institutional Repository: is an archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution, particularly a university or research institution.

CRIS (Current Research Information System): is an information system to store, manage and exchange contextual metadata for the research activity funded by a research funder or conducted at a research-performing organisation such as a university.

Research Performance Analytics: Dedicated tools used to undertake sophisticated research performance analyses based on publication, citation and collaboration data. They are typically used to track research productivity and demonstrate a return on research value.

13 References

[1] ARL Statistics 2018-19